

Clean Air Act
Compliance
Enforcement
Policy
Compendium

1988 ed.
Volume 1

August 17, 1993

MEMORANDUM

TO: Pat Strougal
ORC Law Library
EPA- Region IV

FROM: Angela Berry
Law Clerk for Tiffany Schauer

A handwritten signature in cursive script, reading "Angela Berry", written over the printed name in the "FROM" field.

RE: Updates for the Claen Air Act
Compliance/Enforcement Policy Compendium

Here are the documents you requested in addition to the latest updates since May 21, 1991. If you need anything else, please do not hesitate to call me at (202) 260-3840 or Tiffany Schauer at (202) 260-6781.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 22 1991

OFFICE OF ENFORCEMENT

MEMORANDUM

SUBJECT: Updating the Clean Air Act Policy Compendium

FROM: Michael S. Alushin *Michael J. Gully for*
Associate Enforcement Counsel
for Air

TO: Addressees

(The purpose of this memo is to ask for your input) on revisions to the Clean Air Act Policy Compendium. It has been nearly two years since the entire compendium has been updated. As you know, in the interim the Clean Air Act was amended. As a result of the Amendments, various policies will need to be revised. Several policies may need to be added or deleted. We would like you to suggest policies which you think should be added to or deleted from the compendium and which need to be changed.

To ensure that we are all reviewing the same compendium (i.e., we all have the same documents in all the proper places), I have attached an updated version of the Table of Contents. I have also made a list (below) of several policies that the Air Enforcement Division has issued since the last partial update in December 1989:

1. Clarification of EPA NESHAP Policy - Nonfriable Asbestos (February 23, 1990)
-- file at Part D, document #11
2. Inclusion of CERCLA Section 103(a) Counts in Asbestos Cases (June 5, 1990)
-- file at Part D, document #12
3. Penalty Policy for Production or Importation in Violation of 40 C.F.R. Part 83 of Substances that Deplete the Stratospheric Ozone (November 2, 1990)
-- file at Appendix VIII to Part E, document #30
4. Revised Guidance on Enforcement During Pending State Implementation Plan Revisions (March 1, 1991)
-- file at Part E, document #32

We would like to have a contact person in each region for the purpose of coordinating updates of the compendium. We can discuss who the contacts will be at the next air branch chiefs meeting, which will be in Ann Arbor on June 4, 1991.

Please direct your comments and questions about this memo and the compendium to Rosemarie Kelley of my staff at FTS-475-7090.

Attachment

Addressees

**Regional Counsels
Regions I-X**

**Air Branch Chiefs/Team Leaders
Office of Regional Counsel
Regions I-X**

**Air and Waste Management Division Director
Region II**

**Air Management Division Directors
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**Air and Radiation Division Director
Region V**

**Air, Pesticides, and Toxics Management Division Directors
Regions IV and VI**

**Air and Toxics Division Directors
Regions VII, VIII, and X**

**Air Compliance Branch Chiefs
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**Alan Eckert
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cc: Air Enforcement Division



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 4 1989

OFFICE OF ENFORCEMENT
AND COMPLIANCE
MONITORING

MEMORANDUM

SUBJECT: The Revised Clean Air Compliance/Enforcement Policy
Compendium

FROM: Terrell E. Hunt
Associate Enforcement Counsel
Air Enforcement Division

TO: Addressees

On August 16, 1988, my office notified you of our intention to update the Clean Air Act Compliance/Enforcement Policy Compendium (the "compendium"). We have good news and bad news: we did update the compendium, making significant revisions to the table of contents (be sure to read the attached explanation). The bad news is that we ran into a printing problem and cannot supply you with all the copies you requested.

Please remember that the following documents contain privileged information which should not be made available to the public:

Part D, document #3

Enforcement of National Emissions
Standard for Vinyl Chloride (06/28/83)

Attachment 1

Part D, document #5

Vinyl Chloride Enforcement Strategy
(07/11/84)

Table 5

Part D, document #10

Interim Asbestos NESHAP Enforcement
Guidance - "Friable asbestos" 1% by Area
or Volume vs. 1% by Weight (04/18/89)

Memorandum only

We hope to continue to update the compendium in the future and will keep you informed. If you have any questions, please contact Justina Fugh, attorney, at FTS 382-2864.

Attachments

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SSCD

Date:

MAY 4 1989

**UNDERSTANDING THE UPDATED CLEAN AIR ACT
COMPLIANCE/ENFORCEMENT POLICY COMPENDIUM**

This compendium collects policies and guidance documents relating to the Clean Air Act and is intended to be used in conjunction with the General Enforcement Policy Compendium.

As you can see from the Table of Contents, we have organized the compendium with a general part followed by parts relating to various sections of the Clean Air Act. In addition, we have included a reference to "related documents" for each part.

We have also included a table entitled "Additions/Deletions to the CAA Policy Compendium" to explain which documents have been deleted or superseded and which ones have been added. ✓

Please note: since we sent the compendium to the printer, EPA issued several guidance documents which should be inserted. You should have already received these documents in the original distribution.

1. Guidance on Inclusion of Environmental Auditing Provisions in Clean Air Act Settlements (January 27, 1989)
insert at Part E, document #33

2. Revised Guidance Concerning Compliance By Use of Low Solvent Technology in VOC Enforcement Cases (February 8, 1989)
supersedes document entitled "Early Compliance and Stipulated Penalties in VOC Enforcement Cases" (11/21/86); delete that document at Part E, document #28 and replace with this one

3. *Interim Asbestos NESHAP Enforcement Guidance -- "Friable asbestos" 1% by Area or Volume vs. 1% by Weight (April 18, 1989)
insert at Part D, document #10

* the memorandum portion of this document is privileged and should not be made available to the public.

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COMPLIANCE/
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1988 ed

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1985-Apr-24	Achieving VOC Compliance from Department of Defense Contractor Facilities (Section 113 Federal Enforcement)	KF3812 .A55C1 nE17
1994-Jan-24	Acid Rain Compliance / Enforcement Guidance	KF3812 .A55C1 nE34
1988-Nov-29	ASHERA Compliance Monitoring Strategy (Asbestos Hazard Emergency Response Act)	KF3812 .A55C1 nD13
1987-Mar-25	Air Civil Penalty Worksheet (revised 25-Mar-1987)	KF3812 .A55C1 nE30 app5
1981-Apr-15	Ajudicatory Proceedings under Section 120 of the Clean Air Act	KF3812 .A55C1 nG05
1980-Jan-10	Alternate Procedure for Section 110(f) Relief in Localized, Short Term Emergency Situations (Section 110: State Implementation Plans)	KF3812 .A55C1 nB03
1988-Mar-17	Appendix II Vinyl Chloride Civil Penalty Policy	KF3812 .A55C1 nE30(2)
1988-Mar-18	Appendix IV Clean Air Act Penalty Policy as Applied to Stationary Sources of Volatile Organic Compounds where Reformulation to Low Solvent Technology is the Applicable Method of Compliance	KF3812 .A55C1 nE30(4)
1988-Mar-18	Appendix IX Clean Air Act Civil Penalty Policy Applicable to Persons who Perform Service for Consideration on a Motor Vehicle Air Conditioner Involving the Refrigerant or Who Sell Small Containers of Refrigerant in Violation of 40 CFR Part 82, Protection of the Stratospheric Ozone, Subpart B Servicing of Motor Vehicle Air Conditioners	KF3812 .A55C1 nE30(9)
1988- Mar-18	Appendix V Air Civil Penalty Worksheet	KF3812 .A55C1 nE30(5)
1988-Mar-18	Appendix VI (new appendix added 3/2/88) Volatile Hazardous Air Pollutant Civil Penalty Policy	KF3812 .A55C1 nE30(6)
1989-Sep 14	Appendix VII Final Penalty Policy for New Residential Wood Heaters, 40 CFR Part 60, Subpart AAA	KF3812 .A55C1 nE30(7)
1986-Dec-5	Application of August 7, 1986 Policy on LST Schedules in Consent Decrees	KF3812 .A55C1

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1986-Dec-23	Availability of LST Schedules in Clean Air Act Section 120 Enforcement Actions	KF3812 .A55C1 nG15
1984-Jun-1	Benzene NESHAPs Guidance (Section 112. National Emission Standards for Hazardous Air Pollutants (NESHAPs))	KF3812 .A55C1 nD04
1993	Civil Penalty Policy Applicable to Persons Who Perform Service for Consideration on a Motor Vehicle Air Conditioner Involving ...	KF3812 A55C1 nE30 app9
1994-Jun-1	Civil Penalty Policy for Violations of 40 CFR part 82, subpart F: Maintenance, Service, Repair, and Disposal of Appliances Containing Refrigerant	KF3812 A55C1 nE30 App(10)
1990-Feb-23	Clarification of EPA NESHAP Policy - Nonfriable Asbestos (Section 112 National Emission Standards for Hazardous Air Pollutants (NESHAPs))	KF3812 A55C1 nD11
1980-May-9	Clarification of Requirements for Inclusion of CEM Provisions in SIPs (Section 110. State Implementation Plans)	KF3812 .A55C1 nB04
1993-Dec-6	Clean Air Act CAA Compliance/Enforcement Policy Compendium Opinion of the General Counsel on the Discretionary Sanctions under section 110(m) of CAA	KF3812 .A55C1 nB11
1991-Oct-25 1992-Jan-7	Clean Air Act Stationary Source Civil Penalty Policy (including "Clarification of the Penalty Policy", added (1992-Jan-7))	KF3812 A55C1 nE30
1988-Mar-31	Compliance Monitoring Strategy for FY89	KF3812 A55C1 nF08
1983-Nov-14	Compliance Strategy for Stationary Sources of Air Pollution	KF3812 .A55C1 nA03
1977-Nov-7	Control Commitments in DCOs and Preservation of Source Rights to Challenge SIP Regulations (Section 113: Federal Enforcement)	KF3812 .A55C1 nE02
1984-Mar-27	Decision in "United States v Kaiser Steel Corp ", No CV-82-2623-IH (C.D. Cal 8-Feb-1984) (Section 113. Federal Enforcement)	KF3812 .A55C1 nE16
1982-Jun-21	Definition of "Continuous Compliance" and Enforcement of O&M Violations	KF3812 .A55C1 nA02

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1980-Dec-11	Delayed Compliance Orders Issued under Section 113(d)(5) of the Clean Air Act (Section 113: Federal Enforcement)	KF3812 A55C1 nE07
1980-May 27	Delayed Compliance Orders Requiring SIP Compliance Through Temporary Control Measures (amended guidance) (Section 113 Federal Enforcement)	KF3812 A55C1 nE05
1976-Jun-25	Documentation of Violation Extending 30 Days Beyond Notice of Violation under Section 113 of the Clean Air Act (Section 113 Federal Enforcement)	KF3812 A55C1 nE01
1982-Apr-30	Duration of Section 113(a) Orders (Section 113 Federal Enforcement)	KF3812 A55C1 nE12
1979-Mar-6	Energy Emergency Task Force Implementation of Section 110(f) of the Clean Air Act	KF3812 A55C1 nB01
1983-Jun-28	Enforcement of National Emissions Standard for Vinyl Chloride (Section 112. National Emission Standards for Hazardous Air Pollutants (NESHAPs))	KF3812 .A55C1 nD03
1976-Apr-26	Enforcement of NSPS Requirements (Section 111 Standards of Performance for New Stationary Sources (NSPS))	KF3812 A55C1 nC01
1976-May3	Enforcement of NSPS Requirements (Section 111 Standards of Performance for New Stationary Sources (NSPS))	KF3812 .A55C1 nC02
1985-Nov-27	Enforcement Policy Respecting Sources Complying with Clean Air Act Requirements by Shutdown	KF3812 A55C1 nA06
1994-Aug-12	Enforcement Response Policy for Treatment of Information Obtained through CAA section 507 Small Business Assistance Programs	KF3812 .A55C1 nL01
1981-Dec-29	EPA Accountability System -- OANR Policy Guidance	KF3812 A55C1 nA01
1983-Aug-22	EPA's Authority to Issue Delayed Compliance Orders After Decemeber 31, 1982 (Section 113: Federal Enforcement)	KF3812 A55C1 nE15
1983-Dec-15	Execution of Confidentiality Agreements under Section 114 of the Clean Air Act	KF3812 A55C1 nF04
1982-Apr-28	Federal Enforceability under PSD	KF3812 .A55C1 nE11a

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1982-Apr-28	Federal Enforceability under PSD (Section 113: Federal Enforcement)	KF3812 .A55C1 nE11
1979-Sep-1	Federal Register Publication of Significant Final Actions under Title I of the Clean Air Act	KF3812 .A55C1 nK01
1981-Apr-24	Final Compliance Date for Unclassified Areas (Section 113: Federal Enforcement)	KF3812 .A55C1 nE09
1984-Sep-6	Final Guidance on Use of Unannounced Inspections	KF3812 .A55C1 nF06
1992-May-11	Final Revisions to the Asbestos Demolition and Renovation Civil Penalty Policy Dated August 22, 1989	KF3812 .A55C1 nE30(3)
1980-Dec-24	Format for Notices of Noncompliance	KF3812 .A55C1 nG02
1986-Apr-22	Guidance: Enforcement Applications of Continuous Emissions Monitoring System Data	KF3812 .A55C1 nE25a
1986-Apr-22	Guidance: Enforcement Applications of Continuous Emissions Monitoring System Data (Section 113: Federal Enforcement)	KF3812 .A55C1 nE25
1989-Jun-05	Guidance for Coordination of Asbestos NESHAP-AHERA Compliance Inspections	KF3812 .A55C1 nD15
1977-Dec-2	Guidance for Section 114(d) of the Clean Air Act	KF3812 .A55C1 nF01
1990-Mar-16	Guidance on Addressing Capture Efficiency in Enforcing VOC SIP Regulations	KF3812 .A55C1 nB10
1990-Mar-16	Guidance on Addressing Capture Efficiency in Enforcing VOC SIP Regulations (Section 110: State Implementation Plans)	KF3812 .A55C1 nB09
1985-Jun-28	Guidance on Complying with the Notification Requirements in Section 113(a)(1) and 113(a)(4) of the Clean Air Act (Section 113: Federal Enforcement)	KF3812 .A55C1 nE19
1982-Jun-8	Guidance on Determination of Asbestos Content of Friable Materials (Section 112: National Emission Standards for Hazardous Air Pollutants (NESHAPs))	KF3812 .A55C1 nD02

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1983-Dec-14	Guidance on Enforcement of Prevention of Significant Deterioration Requirements under the Clean Air Act	KF3812 .A55C1 nH01
1986-Apr-11	Guidance on Federally-Reportable Violations for Stationary Sources	KF3812 .A55C1 nA07
1986-Nov-26	Guidance on Implementing the Discretionary Contractor Listing Program	KF3812 .A55C1 nJ02
1989-Jan-27	Guidance on Inclusion of Environmental Auditing Provisions in Clean Air Act Settlements	KF3812 .A55C1 nE33
1989-Jun-13	Guidance on Limiting Potential to Emit in New Source Permitting	KF3812 .A55C1 nH03
1982-Feb-25	Guidance on NESHAP Asbestos Standards (Section 112: National Emission Standards for Hazardous Air Pollutants (NESHAPs))	KF3812 .A55C1 nD01
1982-May-4	Guidance on Policy for Enforcement of Visible Emissions Violations Against Sources Which are Meeting an Applicable Mass Emission Standard (Section 113: Federal Enforcement)	KF3812 .A55C1 nE13
1983-Sep-15	Guidance on Use of Section 303 of the Clean Air Act	KF3812 .A55C1 nI01
1986-Oct-1	Guidance S-26: Enforcement of the Arsenic NESHAP for Glass Manufacturing Plants (Section 112: National Emission Standards for Hazardous Air Pollutants (NESHAPs))	KF3812 .A55C1 nD07
1988-Aug-05	Identifying and Expediting SIP Revisions that Impact the Enforcement Process	KF3812 .A55C1 nB10
1985-Jul-2	Impact of Intermittent Source Operations on Clean Air Act Penalty Calculations	KF3812 .A55C1 nG14
1985-Jul-2	Impact of Intermittent Source Operations on Clean Air Act Penalty Calculations (Section 113: Federal Enforcement)	KF3812 .A55C1 nE21
1984-Aug-8	Implementation of Mandatory Contractor Listing	KF3812 .A55C1 nJ01
1981-Feb-12	Implementation of Noncompliance Penalty Program under Section 120 of the Clean Air Act	KF3812 .A55C1 nG03

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1980-Jan-14	Inappropriate Issuance of Section 113(d)(4) Orders to Sources Subject to NSPS (Section 113: Federal Enforcement)	KF3812 A55C1 nE03
1990-Jun-5	Inclusion of CERCLA Section 103(a) Counts in Asbestos NESHAP Cases (Section 112: National Emission Standards for Hazardous Air Pollutants (NESHAPs))	KF3812 .A55C1 nD12
1985-Jul-10	Injunctive Relief in Asbestos Demolition and Renovation Cases (Section 112: National Emission Standards for Hazardous Air Pollutants (NESHAPs))	KF3812 A55C1 nD06
1989-Apr-18	Interim Asbestos NESHAP Enforcement Guidance -- "Friable Asbestos" 1% by Area or Volume vs. 1% by Weight (Section 112: National Emission Standards for Hazardous Air Pollutants (NESHAPs))	KF3812 A55C1 nD10
1989-Jan-31	Interim Final: Enforcement Response Policy for the Asbestos Hazard Emergency Response Act (AHERA)	KF3812 .A55C1 nD14
1980-Mar-11	Interim Particulate Controls (Section 113 Federal Enforcement)	KF3812 .A55C1 nE04
1992-Feb-7	Issuance Guidance on "Timely and Appropriate" Enforcement Response to Significant Air Violators"	KF3812 .A55C1 nA04
1980-Aug-26	Issuance of Administrative Compliance Orders in Light of "Harrison v PPG Industries, Inc.", 446 US 578 (1980) (Section 113 Federal Enforcement)	KF3812 A55C1 nE06
1981-Apr-31	Issuance of Notices of Noncompliance under Section 120 of the Clean Air Act to Seasonal Sources	KF3812 .A55C1 nG06
1981-Feb-23	Issuance of Section 113 (a) Orders to NSPS Sources for Failure to Conduct Performance Tests	KF3812 A55C1 nE08
1986-Jan-17	Issues #3(e) & #5 of the VOC Issue Resolution Process: Establishing Proof of VOC Emissions Violations and Bubbles in Consent Decrees Resolving Civil Actions under section 113(b) of the Clean Air Act	KF3812 .A55C1 nE22
1981-Jul-17	Liability Agreement Between EPA Contractors and Stationary Air Pollution Sources	KF3812 A55C1 nF03
1988-Mar-11	Listing Asbestos Demolition and Renovation Companies Pursuant to Section 306 of the Clean Air Act	KF3812 .A55C1 nJ03
1984-Jul-12	More Effective Use of Clean Air Act Section 120 as an Enforcement Tool	KF3812 A55C1

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1990-Nov-2	New Amended Penalty Policy for Production or Importation in Violation of 40 CFR Part 82 of Substances that Deplete the Stratospheric Ozone	KF3812 .A55C1 nE30(8)
1989-Jan-31	New SIP Processing Procedures (Region 4)	KF3812 .A55C1 nB14
1985-Jun-28	Particulate Matter Interim Enforcement Policy (Section 113: Federal Enforcement)	KF3812 .A55C1 nE20
1986-Sept-26	Penalties under "Timely and Appropriate" Guidance (Section 113 Federal Enforcement)	KF3812 A55C1 nE27
1985-Jun-25	Penalty Computations under Section 113 Civil Penalty Settlement Policy and Section 120 of the Clean Air Act	KF3812 .A55C1 nE18a
1985-Jun-25	Penalty Computations under Section 113 Civil Penalty Settlement Policy and Section 120 of the Clean Air Act (Section 113: Federal Enforcement)	KF3812 A55C1 nE18
1989-Sep-14	Penalty Policy for New Residential Wood Heaters (added 14-Sep-1989)	KF3812 A55C1 nE30 app7
1990-Nov-2	Penalty Policy for Production or Importation in Violation of 40 CFR Part 82 of Substances that Deplete the Stratospheric Ozone (revised 2-Nov-1990)	KF3812 A55C1 nE30 app8
1987-Mar-25	Penalty Policy for Violations of Permit Requirements (revised 25-Mar-1987)	KF3812 A55C1 nE30 app1
1985-Mar-19	Permissible Grounds for Settlement of Noncompliance Penalties under Section 120 of the Clean Air Act	KF3812 A55C1 nG12
1982-Apr-27	Policy for Addressing Violations Subject to Non-Promulgated Regulations (Section 113: Federal Enforcement)	KF3812 .A55C1 nE10
1983-Feb-15	Policy on Excess Emissions During Startup, Shutdown, Maintenance and Malfunctions (Section 110: State Implementation Plans) [clarifies memorandum of same title dated 28-Sep-1982]	KF3812 A55C1 nB05
1986-Aug-7	Policy on SIP Revisions Requesting Compliance Date Extensions for VOC Sources (Section 110 State Implementation Plans)	KF3812 A55C1 nB07

**Clean Air Act (CAA) Compliance/Enforcement Policy Compendium
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1986-Aug-7	Policy on the Availability of Low Solvent Technology Schedules in Clean Air Act Enforcement Actions (Section 113: Federal Enforcement)	KF3812 .A55C1 nE26
1982-Apr-22	Postponement of Enforcement Action During NSPS Review (Section 111 Standards of Performance for New Stationary Sources (NSPS))	KF3812 .A55C1 nC03
1980-Sep-12	Priorities for Issuing Notices of Noncompliance	KF3812 .A55C1 nG01
1991-Apr-25	Procedure for Raising the Question of a Possible Criminal Violation in the Context of a Civil Referral from a Regional Office	KF3812 .A55C1 nA09
1988-Jul-15	Procedures for EPA to Address Deficient New Source Permits under the Clean Air Act	KF3812 .A55C1 nH02
1989-Jan-30	Procedures for Letter Notice Approval of Minor SIP Actions	KF3812 .A55C1 nB15
	Procedures for Pre-Referral Settlement of Asbestos Demolition and Renovation Cases (Section 112 National Emission Standards for Hazardous Air Pollutants (NESHAPs))	KF3812 .A55C1 nD08
1983-Apr-26	Procedures for Review and Federal Register Publication of Delayed Compliance Orders under Section 113(d) of the Clean Air Act (Section 113 Federal Enforcement)	KF3812 .A55C1 nE14
1991-Mar-22	Processing of Pending Revisions to Federally-Approved State Implementation Plans (SIP's)	KF3812 .A55C1 nB13
1988-Nov-28	Proposed Revisions to the Asbestos Demolition and Renovation Civil Penalty Policy	KF3812 .A55C1 nE30 app3(a)
1988 Nov-28	Proposed Revisions to the Asbestos Demolition and Renovation Civil Penalty Policy	KF3812 .A55C1 nE30(3)(a)
1981-May-13	Regional Office Criteria for Neutral Inspections of Stationary Sources	KF3812 .A55C1 nF02
1983-Feb-23	Requirement to Publish All Significant Final Actions under Title I of the Clean Air Act	KF3812 .A55C1 nK02

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1986-Feb-28	Responses to Four VOC Issues Raised by the Regional Offices and DOJ (Section 113: Federal Enforcement)	KF3812 .A55C1 nE24
1986-Jan-31	Responses to Two VOC Questions Raised by the Regional Offices (Section 113: Federal Enforcement)	KF3812 .A55C1 nE23
1982-May-7	Restatement of Guidance on Emissions Associated with Soot Blowing (Section 111: Standards of Performance for New Stationary Sources (NSPS))	KF3812 .A55C1 nC04
1984-Sep-24	Review of Application of Test Methods in Clean Air Act Enforcement Cases	KF3812 .A55C1 nA05
1987-Sep-23	Review of State Implementation Plans and Revisions for Enforceability and Legal Sufficiency (Section 110: State Implementation Plans)	KF3812 .A55C1 nB08
1988-Mar-31	Revised Asbestos NESHAP Strategy (Section 112: National Emission Standards for Hazardous Air Pollutants (NESHAPs))	KF3812 .A55C1 nD09
1989-Feb-8	Revised Guidance Concerning Compliance by Use of Low Solvent Technology in VOC Enforcement Cases	KF3812 .A55C1 nE28
1991-Mar-1	Revised Guidance on Enforcement During Pending State Implementation Plan Revisions	KF3812 .A55C1 nE32
1989-Aug-29	Revised Guidance on Enforcement of SIP Violation Involving Proposed SIP Revisions	KF3812 .A55C1 nB12
1989-Aug-29	Revised Guidance on Enforcement of State Implementation Plan Violations Involving Proposed SIP Revisions	KF3812 .A55C1 nB16
1985-May-15	Rules Governing Conclusion of Clean Air Act Section 120 Actions	KF3812 .A55C1 nG13
1984-Apr-13	Section 120 Consultation Policy	KF3812 .A55C1 nG10
1981-Apr-2	Settlement of Noncompliance Penalty Assessment under Section 120 of the Clean Air Act	KF3812 .A55C1 nG04
1982-Feb-3	Settlement of Section 120 Actions	KF3812 .A55C1 nG07

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1987-Nov-23	Settling Enforcement Action in Clean Air Act Non-attainment Areas Against Stationary Air Sources Which Will Not Be In Compliance by the Applicable Attainment Date	KF3812 A55C1 nE31
1983-Jul-29	Source Specific SIP Revisions (Section 110: State Implementation Plans)	KF3812 A55C1 nB06
1979-Jun-19	Supplemental Guidance Regarding Implementation of Section 110(f) of the Clean Air Act (Section 110: State Implementation Plans)	KF3812 .A55C1 nB02
1988-Mar-17	Supplementation to Page 11 of the Clean Air Act Stationary Source Civil Penalty Policy	KF3812 .A55C1 nE30(1)
1986-Apr-11	Timely and Appropriate Enforcement Guidance	KF3812 .A55C1 nA08
1985-Jul-9	Timely and Appropriate Guidance and Asphalt Plants (Section 111: Standards of Performance for New Stationary Sources (NSPS))	KF3812 .A55C1 nC05
1988-Mar-31	Transmittal of Reissued OAQPS CMSs Policy	KF3812 A55C1 nF07
1997-Jun-7	Transmitting Final Penalty Policy for Violations of 40 CFR Part 82, Subpart F: Maintenance, Service, Repair, and Disposal of Appliances Containing Refrigerant	KF3812 .A55C1 nE30(10)
1997-Jun-7	Transmitting Final Penalty Policy for Violations of 40 CFR Part 82, Subpart F: Maintenance, Service, Repair, and Disposal of Appliances Containing Refrigerant	KF3812 .A55C1 nE30(10)a
1984-Feb-22	Use of Contractors to Conduct Clean Air Act Inspections After the Supreme Court's Decision in "United States v Stauffer Chemical Co.", 464 US 165 (1984)	KF3812 .A55C1 nF05
1982-Apr-30	Use of Section 120 Noncompliance Penalties to Promote Compliance of Stationary Sources	KF3812 A55C1 nG08
1984-Jul-11	Vinyl Chloride Enforcement Strategy (Section 112: National Emission Standards for Hazardous Air Pollutants (NESHAPs))	KF3812 A55C1 nD05
1988-Mar-2	Volatile Hazardous Air Pollutant Penalty Policy (added 2-Mar-1988)	KF3812 .A55C1 nE30 app6
1987-Mar-25	Volatile Organix Compounds Penalty Policy (revised 25-Mar-1987)	KF3812 A55C1

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**1983-Apr-21 Waiver of Consultation Requirements for Initiation of
Administrative Enforcement under the Clean Air Act and
Adjustments to Section 120 Penalties**

**KF3812
.A55C1
nG09**

The Clean Air Act Compliance/Enforcement Policy Compendium

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EPA Accountability System -- OANR Policy Guidance
(12/29/81)

File at Part A, Document #1



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D C. 20460

OFFICE OF
AIR, NOISE, AND RADIATION

DEC 29 1981

SUBJECT: EPA Accountability System -- OANR Policy Guidance

FROM : Kathleen M. Bennett, Assistant Administrator
for Air, Noise and Radiation

MEMO TO: Regional Administrator
Region I - X

The recently established Accountability System requires my office to issue policy guidance covering delegations of NSPS, NESHAPS and PSD programs, and regional audits of state programs. In addition, it requires an identification of the impediments to processing of SIP revisions and to speedy source compliance. In these two cases it asks that we, by January 15, 1982, develop milestones for issuing appropriate policy or guidance where impediments have been identified. The attachments to this memo contain the required policy guidance for delegated programs and state audits. In addition, there is included a discussion of impediments to SIP processing and enforcement action resolution. We are furnishing to you now our proposed schedule for resolution of such impediments as have been identified.

I would like to call your attention particularly to the discussion of state program delegations which emphasizes the creative use of EPA grant support appropriated under section 105 of the Clean Air Act. Air Program grants are intended to support specific state program activities and I encourage you, in your negotiations with the states, to make full use of our authorities in this area.

Attachments

cc: A&HM Division Directors
OANR Office Directors

OFFICE OF AIR, NOISE, AND RADIATION POLICY GUIDANCE

Delegation to States - New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants

The Administrator's Accountability System, Objective A, subobjective 1, Air, Noise, and Radiation, addresses delegation of New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAPS) to the State and, in some cases, local air pollution agencies. These programs are not new and delegation has been a priority item for the Regions for about ten years. Despite this, only 32% of the States have full delegation of NSPS and only 27% of the States have full delegation of NESHAPS.^{1/} The information presented below provides a general orientation to these programs and discusses Agency policy in some areas relevant to successful delegation of these programs.

NSPS are covered by Section 111 of the Clean Air Act, which requires EPA to set emission limits for selected new sources

"which reflect the degree of emission reduction achievable through the application of the best system of continuous emission reduction which (taking into consideration the cost) . . . has been adequately demonstrated . . ."

To date EPA has promulgated NSPS for 37 major source categories (see Table 1) and anticipates adding 14 additional source categories in FY 1982 and 18 in FY 1983 (Table 2). Pollutants regulated vary for each source category and include particulate, SO₂, CO, NO, VOC (volatile organic compounds), acid mist, total reduced sulfur, and fluorides.

NESHAPS are covered by Section 112 of the Clean Air Act. These emission limits are applicable to new and existing sources and are set by the Administrator

"at the level which in his judgment provides an ample margin of safety to protect the public health from such hazardous air pollutant."

NESHAPS have proven difficult to develop and have been promulgated for a total of only 20 source categories involving four pollutants; benzene may be added for three source categories in FY 1982 (Table 3).

^{1/} "Delegation of EPA Programs, NESHAPS" and "Delegation of EPA Programs, NSP. Reports prepared by Regional Analytic Centers, September 1981.

Delegation - Delegation of both NSPS and NESHAPS to the States is provided for in the Clean Air Act. Similar provisions in Sections 111 and 112 state:

"Each State may develop and submit to the Administrator a procedure for implementing and enforcing standards of performance for [new sources] [emission standards for hazardous air pollutants for stationary sources] located in such State. If the Administrator finds the State procedure is adequate, he [she] shall delegate to such State any authority he [she] has under this Act to implement and enforce such standards."

EPA has no regulations defining when a State procedure should be considered adequate; general guidance was provided by the Office of Enforcement in 1973^{2/} and precedent has been set by many delegations over the past ten years. Generally these involve conformance to test methods, definitions, compliance data requirements and maintenance and operation procedures that are articulated in the NSPS for each source category.

The current status of delegation of NSPS and NESHAPS by Region and by State are presented in Figures 1 and 2.^{1/} This summary shows wide variations in Regional delegation of these programs. It is not clear to what extent different Regional definitions of "adequate procedures," varying priorities, policy on use of air program grants, general Regional/State relations, or fundamental difference between States in different sections of the country have affected these delegations. Although the proposed measure in the Accountability System focuses on the change in percent delegation over the year, it also requires justification of nondelegation. This should increase your sensitivity to the significance of obstacles to delegation.

Action Items and Measures - Although the State normally will be the unit receiving delegation, there are situations where delegations are made directly to local agencies, e.g., Philadelphia, Memphis, California Districts. These should be counted as a State when determining total delegations and progress.

Although full delegation is the goal, there are situations where States will assume only part of the workload and responsibility. The most common is for a State to refuse responsibility for selected source categories, e.g., petroleum refineries in Maine. This is the major reason for the 22 States shown as partial for NSPS in Figure 1. Allowing only a single classification for a State oversimplifies and is corrected in the new Accountability System by basing the evaluation on individual NSPS or NESHAPS rather than forcing a State into a single category of "full" or "partial." There are other ways in which a State could fall short of full delegation. These include not accepting all of EPA's procedural requirements (e.g., reporting), enforcement (e.g., stack test observations), or by including only a portion of a source category (e.g., having a larger source size cutoff than EPA for applicability determinations). EPA

^{2/} "Delegation of Authority to the States - NSPS and NESHAPS" Guideline S.13; EPA Office of Enforcement (July 1973).

should accept State reporting requirements as a substitute for those specified in the NSPS. In the other issues where EPA retains some direct responsibility the delegation should be counted as full in the totals but identified as less than complete and discussed in the accountability reports.

Regional Actions - There are several factors that are at least partially under the control of the Regional Administrator that may enhance successful delegation of NSPS and NESHAPS programs. These include definition of "adequate procedures," use of Section 105 air program grants, and policy on program audits.

The Agency should be as flexible as possible in the determination of when a State program is adequate and delegation can be made. The appropriate attitude toward State and local agencies is to presume both capability and proper intention, if at all possible. Many States have had comprehensive and successful new source review programs for years and they should not be expected to change them to accommodate exactly EPA's requirements for NSPS and NESHAPS. Emphasis must be on the compatibility of the objectives of the State new source program in relation to EPA's goals. You should evaluate carefully the real importance of each of the procedural requirements and minimize our insistence that they be part of the State program. It is necessary to separate on a case-by-case basis the real legal requirements for delegation from stated needs based on tradition or desire. The possibility of promoting "automatic" delegations should be considered. Automatic delegation refers to a process where States, through enabling legislation, assume responsibility for enforcement of NSPS and NESHAPS once the standard is published in the Federal Register. Regional Offices should foster this approach by consulting with appropriate State officials and attempt to resolve any legal issues which may inhibit this approach in some States.

A survey of operating permits done for EPA by GCA Corporation^{3/} reviews and discusses the operating permit system used by all States and by 14 large local agencies. All had systems for permitting new construction. Coverage was extensive; between 100 and 5000 operating or new source permits are processed per agency annually. These general permit systems used about 20% of the resources of these agencies. It is not apparent that EPA has been sufficiently flexible or imaginative in utilizing fully these existing State permit systems in their delegations. Consideration is being given to changing the entire SIP process to depend much more on these State permit systems and less on conformance to EPA procedural requirements. The NSPS and NESHAPS programs should follow this principle. In any situation where a State has authority to permit new sources and will incorporate the NSPS in its permit, including appropriate compliance test procedures, delegation should follow.

Air program grants and SEA's (State/EPA Agreements) could be used better in many Regions to facilitate delegation. These grants are meant to be performance oriented and it is appropriate to "condition" a portion of the funds on State assumption of the NSPS and NESHAPS. In FY 1981 eight Regions earmarked air grant funds for this purpose, involving 33 States and over \$1 million. Amounts for

^{3/} "Survey of Experience with State and Local Operating Permit Programs," GCA Corporation, DSE, EPA (January 1980).

individual States ranged from \$1K to \$110K. Since resource oriented problems^{4/} were noted frequently by the States as a reason for not accepting delegation, (over 1/3 of the time for NSPS and nearly half of the time for NESHAPS) progress in delegation should be possible by increasing its priority and recognizing these activities specifically in the program planning and grants processes.

The move toward less rigidity in delegation should be reflected in EPA's approach to program evaluation. Guidelines are being developed by OANR to assist in auditing State and local new source review programs, including NSPS and NESHAPS. These will be based on a comprehensive report prepared by the Office of Planning and Evaluation for OANR.^{4/} EPA policy is to emphasize State capability and provide general oversight of the effectiveness of the system used by the State rather than focus on permit-by-permit reviews and second guessing of State decisions in specific situations.

In summary, given general State/local authority for the control of air pollution, including new source permitting, NSPS/NESHAPS delegations should not be impeded by legal authority issues. Your strategy on delegation of NSPS and NESHAPS should emphasize: 1) flexibility and imagination in the use of existing permit systems and encouraging the use of automatic delegations where feasible; 2) better use of SEA's and program grants; and 3) audits of State programs that are designed to evaluate the general effectiveness of the program and to improve it.

^{4/} "EPA Oversight of Air New Source Reviews (Draft)," Report by the Program Evaluation Division, Office of Planning and Resource Management (July 27, 1981).

Table 1

EXISTING NEW SOURCE PERFORMANCE STANDARDS, November 1981

	<u>Part.</u>	<u>Opacity</u>	<u>VOC</u>	<u>Other</u>
am Generators (>250 MBtu/hr)	X	X	-	SO ₂ , NO _x
Municipal Incinerators (>50 tons/day)	X			
Portland Cement Plants	X	X		
Nitric Acid Plants		X		NO _x
Sulfuric Acid Plants		X		SO ₂ , Acid Mist
Asphalt Concrete Plants	X	X		
Petroleum Refineries, Process Gas Combustion				SO ₂
Petroleum Refineries, Catalytic Regenerators	X	X		CO
Petroleum Storage			X	
Secondary Lead Smelters & Refineries	X	X		
Secondary Brass and Bronze Refining Facilities	X	X		
Iron and Steel Mills: Basic Oxygen Furnaces (TSP)	X			
Sewage Treatment Plants	X	X		
Phosphate Fertilizer, Wet Process Phosphoric				Fluorides
Phosphate Fertilizer, Superphosphoric Acid				Fluorides
Phosphate Fertilizer, Diammonium Phosphate				Fluorides
Phosphate Fertilizer, Triple Superphosphate Prod.				Fluorides
Phosphate Fertilizer, Triple Superphosphate Stor.				Fluorides
Iron and Steel Mills, Electric Arc Furnaces	X	X		
Primary Aluminum Reduction Plants		X		Fluorides
Primary Copper Smelters	X	X		SO ₂
Primary Zinc Smelters	X	X		SO ₂
Primary Lead Smelters	X	X		SO ₂
Coal Cleaning Plants	X	X		
Ferroalloy Production	X	X		CO
Kraft Pulp Mills	X	X		Reduced Sulf
Sulfur Recovery in Petroleum Refineries			"	SO ₂
Lignite Fired Steam Generators				NO _x
Lime Plants	X	X		
Grain Elevators	X	X		
Iron and Steel Mills: BOF (Opacity)		X		
Revised Steam Generator	X	X		SO ₂ , NO _x
Gas Turbines				SO ₂ , NO _x
Hydrocarbon Storage Tank Revision			X	
Auto and Light Truck Surface Coating			X	
Glass Manufacture	X			
Ammonium Sulfate Manufacturing	X	X		

Table 2

**New Source Performance Standards Scheduled for Promulgation
in the Period FY 82 Through FY 83**

FY 82 (14)

Stationary Internal Combustion Engines
Phosphate Rock Preparation
Lead Battery Manufacturing
Perchloroethylene Dry Cleaning
Pressure Sensitive Tapes & Labels Manufacturing
Organic Chemical Manufacturing, Fugitive Emissions
Gasoline Bulk Terminals
Asphalt Roofing Manufacturing
Organic Solvent Degreasing
Graphic Arts (Rotogravure Printing)
Industrial Surface Coating, Can Manufacturing
Industrial Surface Coating, Metal Furniture Manufacturing
Industrial Surface Coating, Large Appliance Manufacturing
Industrial Surface Coating, Metal Coil Manufacturing

FY 83 (18)

Coke Ovens, Quenching
Volatile Organic Liquid Storage
Rubber Tire Manufacturing
Synthetic Organic Chemical Manufacturing, Air Oxidation Processes
Synthetic Organic Chemical Manufacturing, Distillation
Petroleum Solvent Dry Cleaning
Synthetic Fiber Manufacturing
Vinyl Film Manufacturing
Petroleum Refineries, Fugitive Emissions
Industrial Boilers, Revision
Gypsum Manufacturing
Metallic Minerals Processing
Basic Oxygen Furnaces, Steel Plants, Revision
Petroleum Refineries, Fluid Catalyst Regenerators, Revision
Non-Fossil Fuel Boilers
Crude Oil & Natural Gas Production
Institutional and Commercial Boilers
Degreasing

Table 3

	<u>Operations Covered</u>
Asbestos	<ul style="list-style-type: none"> • Manufacturing • Demolition and renovation • Spraying • Fabricating • Insulating • Waste disposal from the above operations • Waste disposal from asbestos mills
Beryllium	<ul style="list-style-type: none"> • Extraction plants* • Ceramic plants* • Foundries* • Incinerators* • Propellant plants* • Machine shops** • Rocket motor test sites
Mercury	<ul style="list-style-type: none"> • Mercury ore processing • Sewage sludge incineration • Chlor-alkali production by the mercury cell process
Vinyl Chloride - <u>Plants which produce:</u>	<ul style="list-style-type: none"> • Ethylene dichloride by the reaction of oxygen and hydrogen chloride with ethylene • Vinyl chloride by any process • Polymers containing fractions of polymerized vinyl chloride
Benzene	<ul style="list-style-type: none"> • Maleic anhydride manufacturing (FY 1982) • Ethylbenzene styrene manufacturing (FY 1982) • Fugitive emission sources (FY 1982) • Storage tanks (FY 1982)

* ...which process beryllium ore, beryllium, beryllium oxide, beryllium alloys, or beryllium containing wastes.

** ...which process beryllium, beryllium oxides, or any alloy when such alloy contains more than 5% beryllium by weight.

Fig. 1. Delegation Status Of New Source Performance Standards
As Of July 1, 1981

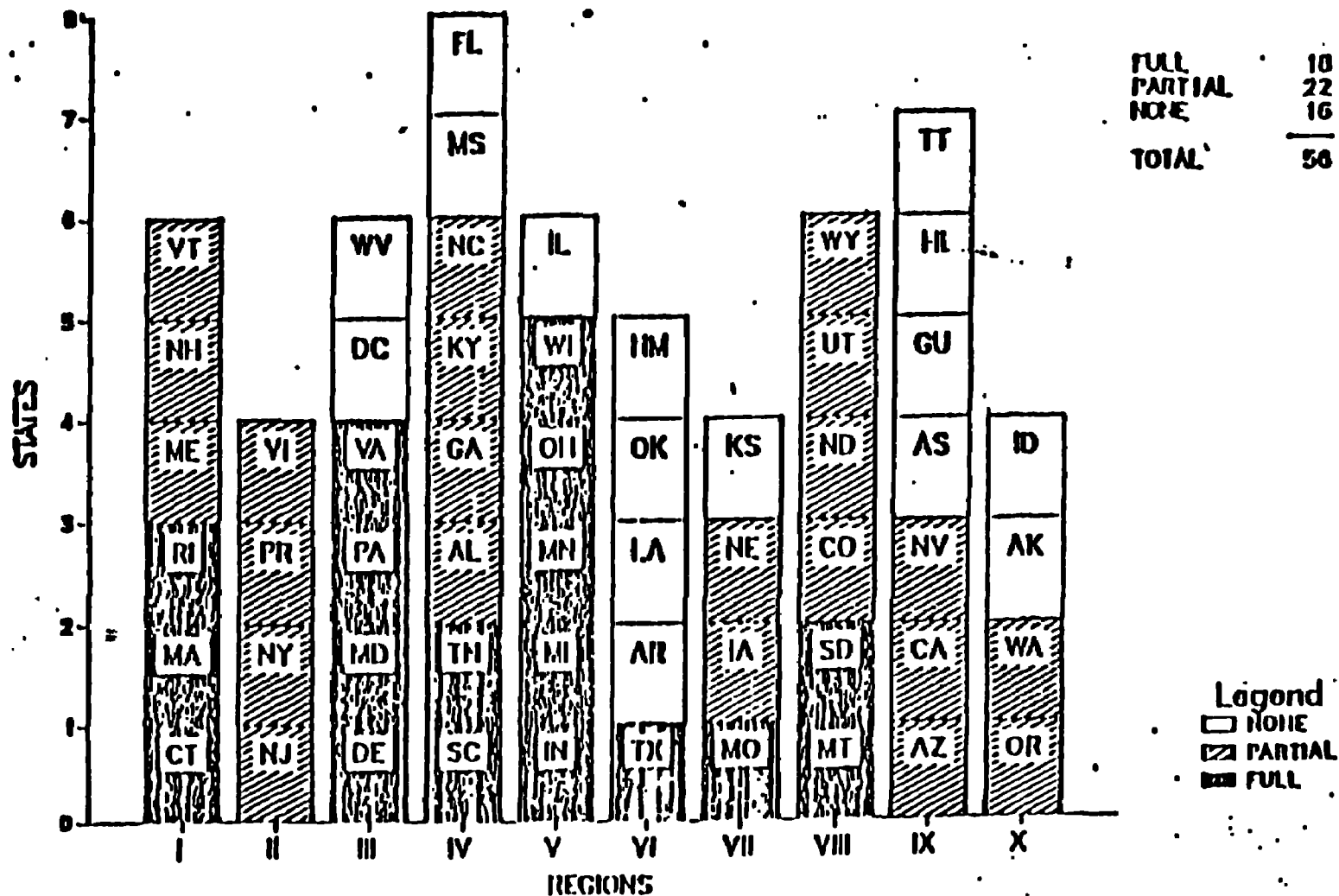
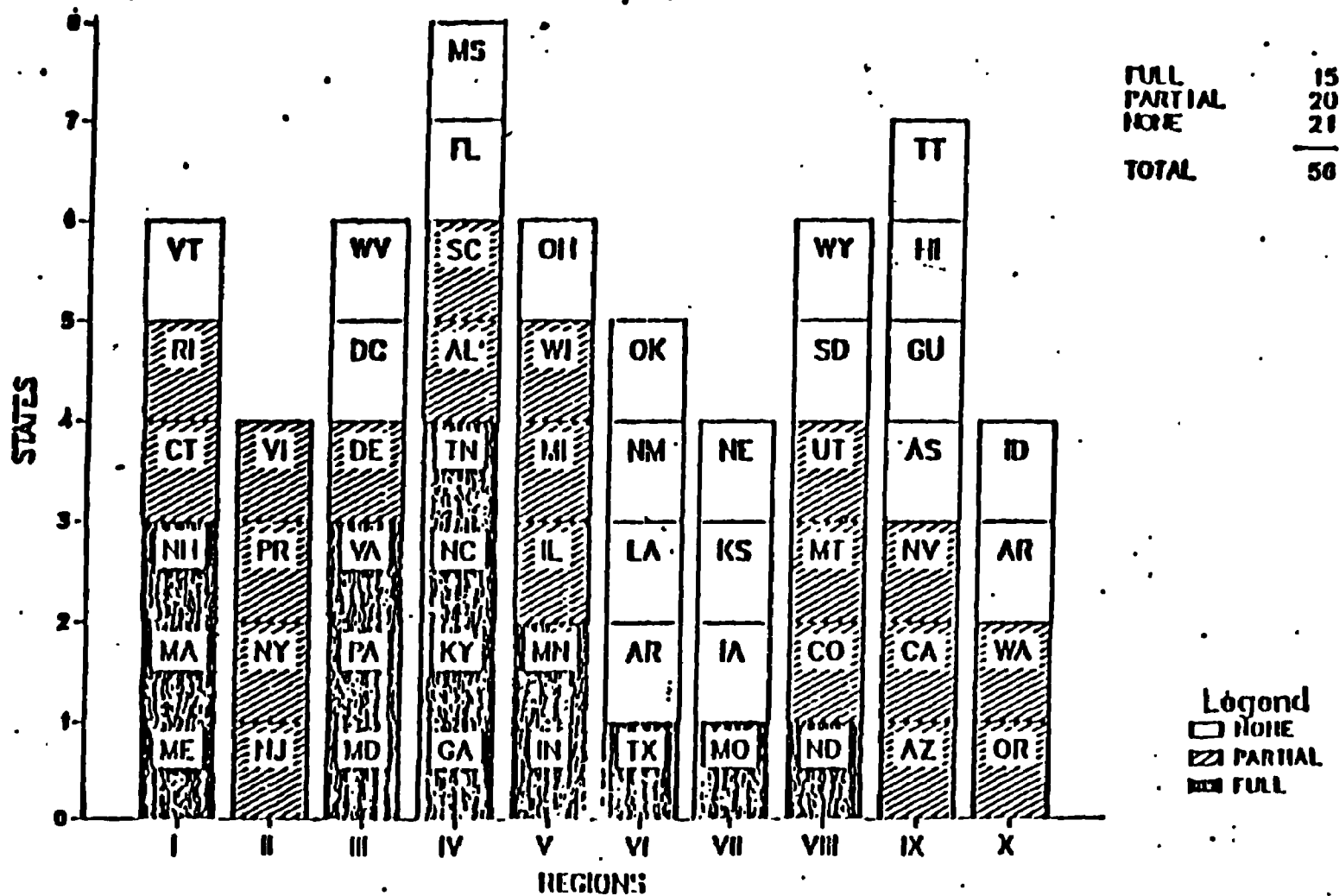


Fig. 2: Delegation Status Of National Emission Standards
For Hazardous Air Pollutants
As Of July 1, 1981



OFFICE OF AIR, NOISE, AND RADIATION POLICY GUIDANCE

Delegation to States - Prevention of Significant Deterioration

The Administrator's Accountability System, Objective A, subobjective 2, Air, Noise, and Radiation, addresses delegation of the program for Prevention of Significant Deterioration (PSD) to State and, in some cases, to local air pollution agencies. State assumption of responsibility for PSD has been an EPA priority for several years. Despite this, only 6 States have approved SIPs for PSD, 11 States have full delegation, and 8 have partial delegation (Figure 1). These SIPs and delegations account for about 60% of PSD permits issued.

PSD Program - The PSD program was initiated in the early 1970's in response to litigation. The basic program was confirmed with specific substantive and procedural details in the 1977 CAA Amendments (Sections 160-169). Essentially, PSD is a new source construction permit program for most major types of air pollution sources. Approval criteria involve the installation of best available control technology (BACT) for all pollutants and an acceptable air quality impact for SO₂ and particulate matter. Acceptable impact is defined for three land use categories as an allowable increase (or increment) in pollutant concentration over a baseline that existed in the area in the mid-1970's. In Class I, national parks and wilderness areas, only very small increases are allowed. The remainder of the country is defined as Class II with moderate increases allowed. States may request reclassification to Class III where more liberal increments would be allowed. Such a reclassification was intended to accommodate State land use decisions to dedicate specific areas to concentrated industrial development. To date no such reclassifications have been requested.

Conceptually, the PSD program can be segregated into five parts: 1) applicability determinations (is a proposed new source covered by the program?); 2) review of planned control technology (does control equipment represent BACT for all pollutants?); 3) analysis of air quality impact for SO₂ and particulate matter (use of meteorological dispersion models); 4) issuance of permit; and 5) recordkeeping to track status of cumulative consumption of the allowable increment. Although these seem straightforward, in practice the PSD program has become overly complex as a result of the drafting of the statute, wideranging litigation, level of detail in EPA regulations, and the frequent need for case-by-case judgment that is often required because of controversial siting requests.

Action Items and Measures - The State normally will be the permit issuance authority. However, in some situations (Pittsburgh, Nashville, California Districts, etc.), local or Regional agencies will have primary responsibility for PSD or will be undertaking much of the technical analysis (e.g., BACT determinations or modeling). These local agencies should be counted as a State when determining total delegations and accomplishments if they have responsibility for PSD.

Three categories are possible when determining whether "delegation" has been made to a State or local agency. Formal SIP approval is the most appropriate way for a State to assume responsibility for PSD. This recognizes the State's essential autonomy and reduces EPA's formal overview role. Although the Accountability System count does not distinguish between SIP approval and full delegation, the Regional strategy should be directed toward the former with full delegation seen as a milestone toward this end. Full delegation means that the State is acting as EPA's agent for the entire program, including negotiation with sources, making all technical determinations, and issuing the permit. Partial delegations should be credited if the State is doing one or more of the major tasks associated with PSD, e.g., BACT determinations and/or dispersion modeling. The formal measure used in the Accountability System does not distinguish the extent of the partial delegation nor does it include any indication of the amount of new source activity anticipated in a State that accepts delegation. These are important in determining the real progress being made in transfer of the PSD program to the States and they should be discussed briefly in the initial status report, the strategy (e.g., estimates of the percent of PSD sources or workload accounted for through delegation), and changes identified in the quarterly progress reports.

Policy Guidance

Although there are many reasons why States do not undertake the PSD program, four issues seem to be most important. These are: 1) limited resources; 2) administrative and technical complexity; 3) constantly changing nature of the program; and 4) EPA reluctance to really relinquish the program.

Resources - The resource question is a matter of priority, use of air program grant funds, and the extent to which we allow States to maximize use of their existing permit systems. PSD delegation has been a high air program priority for the past several years. The workload model used for recommending allocation of a large part of Regional air resources has assumed steady gains in delegation and, therefore, it has reduced each year the allocation for direct permit review by EPA. In FY 1983 the allocation model will assume that the States will have almost all of the PSD workload.

Air grants are vital to delegation of PSD and all Regions reserve grant funds for the program. In FY 1981 this totaled about \$3-1/4 million and involved 50 States. The funds earmarked for individual States ranged from \$4K to \$400K. Although tabulations are incomplete, it appears that over \$5 million in grants will be given for new source review in FY 1982. This represents appropriate emphasis on PSD. The problem, however, is that accountability on the use of these grant funds is not emphasized, and over 25 States continue to get grant funds for new source review yet have accepted no part of the PSD program. In FY 1981 only \$180K was withheld or recovered in a formal way in four States because of inadequate progress in PSD. Some Regions are conditioning FY 1982 grant awards upon States assuming the program during FY 1982. PSD clearly is meant to be a State program and it is recommended that grant funds be "conditioned"

for it in all States. If the State fails to take the program, these funds should be withheld and used by the Region to do the required permit reviews through contractor assistance. The importance of PSD and Agency policy on grants should be made clear to the State policymakers through the State/EPA Agreement negotiation process and at the start of grant negotiations.

Complexity - The PSD program is complex and difficult to understand and it has outrun the ability of some small States to handle it. Partially this is due to the nature of the program that requires BACT and air quality impact analysis on a case-by-case basis. Most States should be able to do the required analysis of control technology for most sources. Assistance for some source categories will be required from the Region and from the BACT Clearinghouse in OAQPS. In addition, some small States may never have a dispersion modeling capability, and contractor assistance should be made available for them using grant funds and the Level of Effort mechanism.

Some of the complexity in PSD is caused by the detail in EPA regulations and the rigidity of interpretation by EPA Regions when delegation is being considered. All States and 14 major local agencies have new source review programs and these utilize a significant portion of the air resources available to the State.^{1/} Most of these require BACT on new sources; many involve air quality modeling. EPA needs to understand better the existing State new source permit systems and to determine whether they satisfy at least some portion of the basic objectives of the PSD program. Consideration is being given to changing the entire SIP program to utilize more fully the State permit system and to emphasize less the detailed procedural requirements. The PSD program should follow this principle.

Program Changes - The PSD program is dynamic and current litigation and any change to the Clean Air Act probably will require modification of the existing requirements. However, this should not be accepted easily as a reason for delaying delegation or State SIP action. It is not anticipated that litigation nor legislation will do away with PSD or that it will change the fundamental nature of the program. If such changes come, they will not be identified for many months and will require EPA regulations for implementation. This is not a rapid process and past experience suggests that if modifications to the current system are required it will be some time before they are able to be implemented.

EPA Reluctance - Permitting new sources involves a large core air pollution effort (technology determinations and modeling) and provides significant leverage over industry and States. Also, initially EPA had the entire PSD program and many Regions staffed up and developed formal organizations to do new source

^{1/} "Survey of Experience with State and Local Operating Permit Programs," GCA Corporation; DSSE, EPA (January 1980).

review. The presence of this infrastructure in the Regional Offices may be slowing delegation. The nature of the State program evaluations planned by the Regions can be influenced by the harshness of Regional policy toward audits. EPA policy is to focus audits on the general capability of the State and on the effectiveness of their overall program in relation to the basic goals of the PSD effort. The evaluation should be constructive and lead to improved State programs. Audits should not emphasize after-the-fact review of specific State actions nor include extensive second guessing of State decisions. Audit policy for new source review is discussed in detail in a recent report prepared for OANR by the Office of Policy and Resource Management.^{2/} Detailed audit guidelines for PSD are being prepared from this report by a workgroup chaired by OANR.

In summary, it is recommended that your strategy on PSD delegation do the following: 1) emphasize SIPs and full delegation but accept all possible incremental progress through partial delegation; 2) make clear your intention to withhold or recover grant funds "conditioned" for PSD if progress is not adequate; 3) be as flexible and as imaginative as possible in allowing States to use existing new source permit systems; 4) emphasize that changes to the PSD program that result from current litigation or pending legislation will not be fundamental nor will they be implemented quickly; 5) evaluate the Regional organization and staffing plan for potential barriers to the full and rapid transfer of PSD to the States; and 6) ensure that the plans for auditing State PSD programs are positive and not punitive.

^{2/} "EPA Oversight of Air New Source Reviews (Draft)." Report by the Program Evaluation Division, Office of Planning and Resource Management (July 27, 1981)

OFFICE OF AIR, NOISE, AND RADIATION POLICY GUIDANCE

Audit of State Performance for Consistency

The Administrator's Accountability System, Objective A, subobjective 3, addresses the problem of evaluating the consistency of State performance for selected air activities. This evaluation is required by the 1977 Clean Air Act, Section 301. The requirements are discussed and amplified by regulations promulgated by EPA on December 24, 1980.^{1/} These charge both Headquarters and Regions with improving the fair and consistent implementation of the Act and specifically require that the midyear grant evaluation (Part 35) be expanded to include a quality audit "of each State's performance in implementing and enforcing the Act" with emphasis on consistency.

Scope of the Audit - This audit of States for consistency will be performed for the first time in FY 1982. For this reason it will be limited in scope to a single activity, new source review (NSR). NSR has been selected because it is a fundamental activity in any air pollution program and is one in which Federal regulations require changes to old, established State procedures for granting preconstruction permits. Also, new source permitting is of great interest to industry and State and local governments. They have claimed that inequities in implementation of NSR programs have led to "permit shopping" and lost opportunities for economic growth.

EPA has initiated many new activities in attempts to improve consistency since the passage of the Act in 1977. These include: quality assurance on all environmental measurement programs; the BACT/LAER Clearinghouse; and the modeling guidelines. Some States believe that these activities have solved much of the problem that caused Congress to require a consistency program. These States do not believe that the consistency audit being required is necessary and they may resist it. In our opinion, a response to the Congressional concern is needed and supporting evidence will be required. The planned audit will both test the hypothesis that consistency in new source review is no longer a significant problem and provide supporting data for whatever follow-up is necessary.

Most program evaluations are concerned with effectiveness; the principal focus of this audit is consistency. This will require an in-depth national analysis of the information that is collected. In order to allow comparison of results, Regions will have less flexibility in determining the nature of this audit than for other program evaluations. A general protocol for the audit and a detailed checklist of questions to be asked are attached. The information provided to Headquarters (OANR) must respond to this checklist; general narrative evaluations of State NSR programs are discouraged. This protocol will be reviewed by the Regions for practicality and made final prior to the conduct of any audits.

^{1/} "Regional Consistency," FR Part 56, Vol. 45, No. 249, page 85405 (December 24, 1980).

The Consistency regulations require the Regional Administrator to prepare an evaluation report and to publish notice of its availability in the Federal Register. However, to be useful, an evaluation of consistency requires a national analysis and cannot be made directly from individual State or Regional reports. Therefore, in lieu of individual reports for each State, OANR will assemble and analyze the information that you collect, prepare a national report and, after your review, publish a summary in the Federal Register and announce the availability of the national report. This should reduce Regional workload and result in more useful conclusions.

Action Items and Measures - In the Consistency regulations the State audit is a part of the required midyear grant review. However, since guidance is not yet available that will coordinate the grant review with more comprehensive air program evaluations, it will not be required to combine them this year. However, the schedule for the consistency audit in FY 1982 is compatible with most grant reviews. State visits and data collection should be completed early in the third quarter and the information sent to OANR by June 1. A national analysis will be available 30 days later in time for use in the FY 1983 planning cycle and grant negotiations.

The Accountability System requires Regions to negotiate with OANR by February 15, 1982, the number and schedule of audits to be undertaken. This negotiation will center around the number of applicable political entities to audit and on the scope of the audit. Some large local agencies (e.g., Nashville, Pittsburgh) have primary responsibility for NSR and they should be audited in addition to the States. Also, some discussion may be necessary to define the types of NSR programs (e.g., NSPS, NESHAPS, PSD, Part 51.18) applicable to a State or local agency and, therefore, determine the extent of the audit. Finally, some States or locals may have just received delegation for parts of the NSR program and only a limited audit will be possible.

Attachment

*Some as follows per
T. Allen*

**PROTOCOL AND CHECKLIST FOR A CONSISTENCY AUDIT
OF STATE NEW SOURCE REVIEW PROGRAMS**

General Procedure

Claims have been made that serious inequities exist between State programs for new source review and that these lead to permit shopping by sources and loss of economic benefit to States that have more rigorous programs. This audit is designed to evaluate the consistency of State programs for new source review. Indirectly this is an evaluation of the effectiveness of EPA guidance on new source review and our success in transferring the programs to the States in a reasonably uniform manner.

The audit generally will require a visit to the State agency by at least one Regional representative, presumably by the NSR coordinator for air programs. A series of questions are provided for the interview. These are designed to examine the State's current policies and procedures in areas of NSR most likely to foster serious inconsistencies. It is recommended that the questions be made available to the State prior to the interview. If necessary, remote States or States with little NSR activity can be audited by mail and telephone. The evaluation focuses on procedures and policies and it should not be necessary to pull and review specific permits in order to complete the audit.

Since a national analysis will be made of the information collected, results should be reported to Headquarters in a brief, quantitative, and consistent manner. The large number of detailed questions being suggested are necessary because of the breadth of the NSR program and in an attempt to facilitate short specific answers. Narrative evaluations will be accepted if necessary, but they are discouraged since they are difficult to include in a national analysis. Unless desired by the Region for its own purpose, there is no requirement for a State-specific analysis and report. However, detailed notes should be retained for Region/Headquarters discussion during the analysis period.

Scope and Schedule

Essentially all States have their own air program to review and permit new sources. Not all of these overlap with some of EPA's required NSR programs, i.e., those that involve NSPS, NESHAPS, and PSD. Our interest is principally on the consistency of those new source permitting programs that States are required to do under the Clean Air Act. However, it is suggested that the Region obtain information on State NSR programs, even if they are not formally being done in response to the CAA, in order to improve our understanding and to facilitate decisions on delegation.

Although the audit is directed at States, it should be expanded to include any local agency or district that has full responsibility for any of the appropriate NSR programs. For example, it is our understanding that four counties in Tennessee, two in Pennsylvania, and the Districts in California all

operate NSR programs, negotiate with sources, and issue permits independent of the States. If so, these should be audited fully.

The current target dates are to complete the audits by June 1, 1982, and to have the national analysis available by July 1, 1982. The Administrator's Accountability System provides for Regional/Headquarters negotiation to be completed by February 15, 1982, to determine the number of agencies to be audited by each Region and the detailed schedules. The draft audit protocols and checklist will be reviewed by the Regions for practicality and will be made final prior to the initiation of any State audits.

DETAILED CHECKLIST FOR AUDIT OF STATE NSR PROGRAM FOR CONSISTENCY

1. General Information

- a) Name of State or local agency.
- b) Name and phone number of person in EPA responsible for evaluation.
- c) Name and title of responsible State person.
- d) Status of State acceptance of PSD, NSPS, NESHAPS (detail exceptions).
- e) Approximate number of new source permits annually.
- f) Approximate size of State NSR program (work years). Total, not only for PSD, NSPS, and NESHAPS. Significant changes in past year?
- g) Miscellaneous - any special situations?

2. Source Discovery and Coverage

States should have evolved a comprehensive system for learning of a source's intention to build and a mechanism for auditing the system. The ultimate inconsistency would result from sources not applying for a permit.

- a) What is the principal mechanism used for source discovery? (Dodge Reports, building permits, other State agencies).
- b) What evaluation is routinely made of the adequacy of the discovery system? (procedure, frequency, by whom).
- c) When was last comprehensive check done? Result?
- d) What procedures are used for sources located after construction (penalties, special review or handling).
- e) What sources are excluded from the State permit process? How are exemptions stated? (type, size, emissions for new and modifications).

3. Validation of Information on Permit

Most new source decisions will be made based on the information contained in the permit. Some validation seems necessary.

- a) What validation is done routinely on information in the permit? (specific or general "make sense," emissions, capability of control devices, modeling, classes of sources).
- b) Are written guidelines available for validation?
- c) Is written documentation of validation made?
- d) Permits validated? Information found in error and changed? (number in past year, fraction of majors, most common errors).

4. Applicability Determinations

The determination of the type of review a new source should receive is a critical decision and can become very complicated.

- a) Does the State have an initial classification system (major, minor) that determines the intensity of the review?

- b) What are the cutpoints? (size, type source, emissions, location, pollutant).
- c) Any significant changes made in cutpoints in past several years? What is general nature of changes?
- d) Any validation or appeal process for initial classification decision?
- e) Approximately what % of applications are classified as minor?
- f) What review do minor sources receive? (against SIP limit, control technology, procedural).
- g) Approximate work days per minor permit?
- h) Does State identify formally and document the nature of the review a major source will receive (NSPS, PSD)?
- i) Is there provision for enough classifications to define major types of reviews? (PSD, NSPS, NESHAPS, offsets, moratorium, nonattainment areas).
- j) What is basis for classification? (pollutant, location, size, cutpoints).
- k) Are the bases compatible with current regulations?
- l) Is the classification system in accord with Regional Office understanding of the situation? (areas and pollutants needing offset, delegation, areas with construction moratorium).
- m) What is State mechanism for keeping staff informed of required changes to classification system? (new nonattainment areas, changes in PSD regulations).
- n) Are sources notified of the basis for their review (classification)?
- o) How are fugitive emissions handled in applicability determinations?

5. Coordination

For many States EPA still does a portion of the reviews for PSD, NSPS, and NESHAPS and coordination between EPA and the States is essential to ensure efficiency and a full review. Coordination between neighboring States also is becoming increasingly important.

- a) Does the State routinely route appropriate applications to EPA if the State does not have responsibility for PSD, NESHAPS, or NSPS?
- b) If not, does the State require the source to notify EPA?
- c) Is there any check on State response to request to notify EPA?
- d) If dual review occurs, what is the mechanism for State and EPA to coordinate evaluation of control technology and modeling?
- e) Does the State notify routinely neighboring States of permits being reviewed?
- f) What is mechanism? At what level is notification made? Is EPA notified routinely?
- g) What are decision criteria for notifying neighboring States?
- h) What information is provided to neighboring States? Examples?
- i) What is the process for reviewing comments from neighboring States? Examples?
- j) Is the State satisfied that they are notified adequately by neighboring States? Satisfied that their comments are reviewed seriously?

- k) During the past year has the State asked for EPA examination or intervention in a permit being reviewed by a neighboring State?
- l) What was the nature of the problem? How was it resolved?
- m) Is public notice required by the State? For what type of sources?
- n) What are the systems used? What is minimum information provided?
- o) Is there written guidance on public participation?
- p) Are comments frequently received as a result of public notice? Approximate %? Are changes made in permit? Examples?
- q) Who classifies comments relative to validity and decides on response?

6. Emission Limits

The emission limit and the basis for it is probably the most important item of a new source permit.

- a) Are there situations where a State issues a permit that does not contain a specific emission limit or its equivalent, such as equipment specifications? What are they?
- b) What is the basis for the emission limit specified? SIP limit? NSPS, if source covered? NESHAPS, if applicable? BACT? LAER?
- c) If source is covered by an NSPS or NESHAPS, does the State ever specify a less restrictive limit on the permit? Under what situations?
- d) What areas of the State require LAER? Is this consistent with the Regional Office understanding?
- e) What is the basis that BACT is needed? For which pollutants?
- f) Is NSPS generally assumed to be BACT if source is covered by NSPS?
- g) How frequently is a specific BACT determination made?
- h) Is BACT often significantly more restrictive than NSPS? Examples?
- i) What is the State process for determining BACT? What is used as the presumptive norm? Are written guidelines available?
- j) Is any formal use made of BACT decisions on similar sources in neighboring States? Is any file kept on BACT decisions in neighboring States?
- k) Is there any formal extramural peer review of BACT determinations?
- l) Is negotiation with the source a part of most BACT determinations?
- m) Are NSPS, BACT, and LAER usually the same? Is LAER frequently more restrictive? Examples?
- n) What is the State process for determining LAER? What is used as the presumptive norm? Are written guidelines available?
- o) Is any formal use made of LAER decisions in neighboring States? Is any file kept on LAER decisions around the country?
- p) Is negotiation with the source usually a part of LAER determinations?

7. Offsets

The use of offsets to allow new sources to locate in nonattainment areas is one of the more complicated facets of the NSR program and, therefore, has the potential for much abuse through misunderstanding.

- a) Is the offset requirement a recognized part of the State NSR program? How often has it been part of a permit during the past year?

- b) Does the State have written guidelines for obtaining offsets?
- c) Does the State have a formal system of recordkeeping and documentation?
Does it prevent double accounting and ensure that amount claimed is surplus beyond that needed for attainment?
- d) Does the State track minor source growth?
- e) Does the State or the source arrange offsets for minor source growth?
- f) Is the State's use of offset consistent with Reasonable Further Progress?
- g) Does State routinely validate the amount and enforceability of the offset claimed by the source?
- h) How does the State handle quantification of fugitive emissions claimed as offsets?
- i) What is State criteria for geographic proximity test?
- j) Is baseline expressed as actual or allowable emissions?

8. Ambient Review of Air Quality Impact

An evaluation of the A.Q. impact of large sources is a relatively new part of State programs and one that often was added as a federal requirement. It usually is complex both technically and procedurally and has significant potential for inconsistency due to the amount of case-by-case judgment required.

- a) What is the basis for determining that an air quality review is required?
For NAAQS? For PSD?
- b) What are the criteria for determining that a Class I area review is required?
- c) What is included in a Class I area review?
- d) What are the State's public hearing requirements for a Class I area review?
- e) Who is the Federal Land Manager for the State's Class I areas?
- f) What is the schedule for notifying the FLM and EPA if a Class I area is involved in a permit review?
- g) What are formal procedures for consideration of FLM and EPA comments?
Examples?
- h) Who generally models the impact of new source permits that require an A.Q. analysis?
- i) Does State validate routinely the modeling calculations submitted with the permit? If not, do they ever validate in this detail? Under what circumstances?
- j) What is State procedure for review of general modeling approach used by the source (model selected, input data)? Is review documented?
Examples?
- k) What is the base used by the State for model selection or for approval of the model selected by the source?
- l) What are the State's procedures for selecting or accepting a model that is not in EPA guideline?
- m) Does the State routinely accept modeling based on one year of off-site meteorological data?

- n) What are State criteria for deleting meteorological data prior to modeling?
- o) How does the State determine the air quality impact of fugitive emissions?
- p) Does modeling extend to areas in neighboring States? What information is provided to adjacent States? Are they involved in negotiations with the source on modeling? How are their comments reviewed? Examples?
- q) What emission is modeled? Maximum? Average?
- r) What operating conditions for the source are used in model? Worst case? Maximum? Average?
- s) Are results for any receptor sites ever discarded after modeling? Under what conditions? What is State policy if screening model shows violations? Examples?
- u) What is the approval/disapproval criteria (highest concentration, high second high).
- v) Is downwash ever modeled? In what situations?
- w) Is the emission limit (including averaging time) on the permit and the emission limit used for modeling ever different? Under what conditions?
- x) In what situations must a source provide air monitoring data? Any exemptions?
- y) Is it routine for sources that must monitor to use existing air quality data? Approximate percentages?
- z) Is EPA guideline used to determine adequacy of existing data? If not, what are criteria? Are written guidelines available?
- aa) If ambient monitoring is required, what are requirements relative to number of samplers, QA, location, length of time, etc.? Are written guidelines available?

9. Permit Conditions

EPA would like to expand its acceptance of State permits in lieu of specific air or NSR emission regulations. A key feature is the form and completeness of the permit.

- a) Does the permit specify all needed conditions? (Is it freestanding?) Examples?
- b) Does the State have a standard list of conditions? What are key items included?
- c) Is in-stack monitoring ever required? When?
- d) What is the form of the typical emission limit? (for SO₂, TSP, VOC).
- e) Is an applicable averaging time specified in the emission limit?

10. Miscellaneous

- a) Does the State have a formal system for tracking increment consumed either for PSD or air quality standards?
- b) If so, what are the major elements of the system? Emissions included; areas involved?

- c) Are written criteria available?
- d) How are fugitive emissions and area sources handled?
- e) How does the system handle fuel switching?
- f) What is the chain of decision-making for new source permits?
- g) What percentage of decisions are reviewed outside of the air agency?
Do these reviews consider other than the technical analysis?
- h) What fraction of these reviews result in a reversal of the agencies' recommendations? Is a reanalysis of BACT, LAER, or air quality impact made?
- i) Is there a formal State appeal system in addition to the courts? What is it? Do they have a broader basis for approval/disapproval than does the normal review?
- j) Are there schedules and timetables on State action on new source permit review? Are these binding or advisory?
- k) Do the deadlines cause problems with adequate programs for public comment and required reviews by adjacent States, the FLM, or EPA?
- l) Is a summary sheet made on each permit quoted? On major source permits? If so, what does it contain?
- m) Does the State have any concern about inconsistency in the NSR program of other States? Specific examples? Recommendations?

OFFICE OF AIR, NOISE, AND RADIATION STATUS REPORT

Streamlined SIP Processes to Reduce SIP Inventory and Accelerate Review

The Administrator's Accountability System, Objective B, subobjective 1, Air, Noise, and Radiation, addresses the streamlined SIP process to reduce SIP inventory and accelerate review. Because of the nature of the ongoing SIP process (detailed below), many of the specific goals for this objective have either been completely met already or new programs are now operating to meet this objective. The impediments to a more efficient SIP review process have been identified and specific programs are now in place to eliminate or mitigate most of these impediments. Through the cooperation of the Regional Offices, a program has begun to speed up SIP processing to a degree well within the March 1, 1982 requirement. The Regional Offices are well ahead of schedule after the first two months of operation. The following text details the identified impediments and the steps taken to correct these problems.

Impediments - The State Implementation Plan (SIP) rulemaking process has several significant characteristics that differ markedly from other Environmental Protection Agency (EPA) actions. Most importantly, the preparation of SIP Federal Register notices is decentralized. The overwhelming majority are prepared in EPA's Regional Offices. In addition, the SIP Federal Register notices cover a wide range of actions, from virtually routine to very sophisticated and/or controversial actions. These unique qualities have caused the evolution of a very specific concurrence process for SIP actions which, in many actions, became very time consuming.

State regulatory actions must be formally incorporated into the Federal SIP through a formal rulemaking process. There is a significant Federal workload involved in preparing, documenting, reviewing, resolving issues, and otherwise processing these rulemaking actions. The Regional Air Branch offices within the Air and Hazardous Materials Division are principally responsible for the preparation and processing of the Federal Register actions. However, Regional Enforcement also reviews and comments on these actions. The SIP review process had evolved to the point where there were an increasing number of review steps and consequently an increasing amount of time needed for review. In many cases this was an across the board increase, with little regard for the importance or impact of the SIP revision. In many cases minor actions were receiving virtually the same review as major policy-related revisions.

The personnel in the Regional Offices who deal with the SIPs and the Control Programs Development Division of OAQPS, through their routine SIP work and regular discussions, have together identified many of the impediments to speed up SIP processing. Staff persons in the Regional Offices and in CPDD work together regularly on individual SIP revisions and specific

issues as a matter of routine. Beyond that, CPDD organizes an Air Branch Chiefs meeting approximately every two months where SIP issues are the major focus. Air and Hazardous Materials Division Directors meetings are also held regularly so that they may have the opportunity to discuss SIP matters with Headquarters personnel. Regular SIP-related status reports are assembled by CPDD with assistance from the Regional Offices and many one-time reports on various SIP issues are developed in this manner also. A SIP Task Force was begun within OAQPS to regularly study means of improving the process. In addition, a monthly OANR SIP status report is now issued which makes it possible to determine the status of SIP revisions in Headquarters review. The upshot of this virtually continuous working together is that both the Regional Offices and CPDD have a very thorough knowledge of the SIP problems and have already developed a precise list of the impediments to speed up SIP processing.

Column 1 in Table 1 shows the steps involved in processing noncontroversial special actions using existing procedures.

A typical review and processing of a SIP revision took approximately 220 work days and involved 24 steps. Of these 220 days, 76 are spent in the EPA Regional Offices, 33 in EPA Headquarters offices, and 111 in other (such as comment periods, OMB review, etc.). Delays can, and do, occur during the review process. These delays may occur at the Regional Office level, at any one of seven Headquarters offices where SIPs are reviewed, or in OMB. Delays may last anywhere from one day to more than one year, depending upon the complexity and controversial nature of the revision. Steps where delays are possible are marked with an asterisk in Table 1, Column 1.

One difficulty has been the number of participating offices in the SIP processing and review process--the Air Branch, Enforcement, and Regional Counsel in the Regional Offices and up to seven different offices in Headquarters. In Headquarters, in particular, it has been a case of review by virtually equal partners with no single office having the responsibility for the entire process. Many of the delays have been caused by this diffused responsibility. Many small issues have been escalated for decision-making beyond the level they have warranted because of this.

All special actions, regardless of importance and air quality impact, received virtually the same review in the standard review process. All would take approximately the 220 work days and 24 steps identified above while going through the standard proposal, comment, final rulemaking track.

An additional burden on the SIP process is that an estimated 30-50 percent of all SIP revisions are single source permits. In most cases, these are routine actions but they go through the SIP process as individual SIP revisions.

Schedule of Improvements and Status of Activities

Finding ways of improving the SIP process has been a continuing process but attempts to mitigate the problem have accelerated in recent years.

Possibly the most significant recent improvement has been the development and national implementation of three experimental SIP processing techniques. These began as pilot projects in three Regional Offices in the Spring of 1981.

The first technique was the elimination of duplicative review (Table 1, Column 2). It involves 22 steps and takes approximately 203 work days. Of these 203 days, 76 are spent in the EPA Regional Office, 19 in EPA Headquarters offices, and 108 in other. This processing technique saves time and reduces the potential for friction between the State and EPA by eliminating a final Headquarters review on actions that do not receive comments or change significantly during the proposed rulemaking.

The second technique is the immediate final rulemaking procedure (Table 1, Column 3). It involves 13 steps and takes approximately 90 days. Of the 90 days, 48 days are spent in the EPA Regional Office, 19 in EPA Headquarters offices, and 23 in other. This technique avoids duplicative EPA reviews by going directly to final rulemaking with non-controversial SIP revisions. A noncontroversial SIP revision is one that is determined to be of limited impact and no adverse or critical public comments are anticipated because of it. Examples of noncontroversial SIP revisions include State monitoring network plans, administrative changes to regulation such as public participation procedures, and certifications of no sources for 111(d) plans. The Federal Register notice promulgating the action does not become effective for 60 days to provide opportunity for comments in the unlikely event there should be any.

The third technique is parallel processing (Table 1, Column 4). It involves 13 steps and takes approximately 90 days. Of the 90 days, 48 are spent in the EPA Regional Office, 19 in EPA Headquarters offices, and 23 in other. Using this technique, EPA will work more closely with the State as it develops a major regulation and proceeds through the State rulemaking process. EPA rulemaking will be carried on simultaneously with the State's process. Ideally, the State and EPA will propose the regulation at the same time, announce concurrent comment periods, and jointly review the comments. The EPA Regional Office will consult with EPA Headquarters offices early on in an effort to ensure that issues are resolved before the State adopts its regulation. All substantive issues should be raised by EPA Headquarters offices before the regulation is proposed for approval. When the State has adopted the regulation, it will then be processed by EPA as a final action. This

procedure involves the same number of steps under previous review procedures; however, the first 13 steps are being done simultaneously with the State's rulemaking process. In other words, by the time EPA receives the State's official submittal, it has already completed its major review and EPA has given the State the technical or policy guidance necessary for Federal approval. Thus, the time between State submittal and final Federal promulgation is decreased considerably.

Experience with the three experimental SIP review techniques showed that resource and time savings were possible. Without an experimental technique, there were ten review steps where delays were possible. The "Eliminating Duplicative Review" technique eliminates one of these steps, the "Immediate Final" procedure eliminates four of these steps, and the "Parallel Processing" technique eliminates all but one of the reviews prior to State adoption of the SIP revision.

A meeting was held to evaluate the use of the three experimental techniques in Washington on June 29, 1981. The meeting was attended by representatives of OAQPS, OGC, DSSE, OPM, OTLUP, OMSAPC, and FOSD. The application of the three techniques was then expanded to include all EPA Regional Offices on July 22, 1981 in a memorandum from Edward Tuerk to the Air and Hazardous Materials Division Directors in the Regional Offices. This decision was announced to the public in the Federal Register on September 4, 1981 (Page 44477). Walt Barber reiterated the importance of using the three experimental techniques in a memorandum to the Air and Hazardous Materials Division Directors on September 18, 1981. A follow-up meeting was held in Washington on September 21, 1981. Three status reports on the use of the three techniques have been prepared--August 17, 1981; September 18, 1981; and early December 1981.

As of November 30, 1981, 101 SIP revisions have been processed using one or more of these approaches. Since July 22, 1981, when the program went into effect nationally, approximately 38 percent of the SIP revisions have been processed using an experimental approach.

A study is underway to evaluate the impact of the experimental SIP processing program on the SIP process. The results of this study will be available by January 1982. A management system is being developed to track the progress of the three techniques. Headquarters and the Regional Offices will be able to determine the precise location of a SIP revision in the review process. This system should be fully operational in the Spring of 1982.

SIP Inventory

Besides the experimental SIP processing techniques, there is some additional work that directly affects the existing SIP inventory problem. On August 6, Walt Barber sent a memorandum to the Air and Hazardous Materials Division Directors on tracking the SIP revisions that were in the Regional Offices but had not yet had a final rulemaking.

The information provided by the Regional Offices to QAOPS as a result of this memorandum was included in a report issued in September 1981--"Status of Revisions to State Implementation Plans." This report indicated that there were 605 actions awaiting final action as of July 31, 1981 in the Regional Offices (later corrected to 659) and that new actions were coming in at the rate of 360 per year.

The Regional Offices projected final action on 50 percent of the inventory by January 1, 1982; on an additional 35 percent by July 1, 1982; on an additional 10 percent by December 31, 1982; with incomplete State submittals accounting for the remaining 5 percent.

A status report developed in November 1981 indicated that during August and September, the Regional Offices had reduced the number of SIP revisions in the July 31 inventory by 19 percent. Even with the addition of the SIP revisions received during this period, there was still a net decrease of 65 revisions for an overall reduction of 10 percent in the total inventory, which includes the July 31 inventory and the August-September submittals. The Regional Offices have developed schedules for processing revisions and reducing the number of actions outstanding. The Control Programs Operations Branch is developing a computerized tracking system for monitoring this activity. The Regional Offices are now 70 actions ahead of schedule--38 finals and 32 proposals.

To continue to make gains in reducing the SIP backlog, the Regions need to be able to keep up with the actions that are coming in at the rate of 360 per year. The three experimental SIP processing techniques are intended to make this possible.

One of the early refinements in the SIP review process was the categorization of special and normal SIP revisions done five years ago. This allowed the Agency to focus its review effort on the more complex and far-reaching issues--the "special" revisions--while allowing the less important, "normal" revisions to go through the system with a less cumbersome review.

This system has been further streamlined in a memorandum from the Assistant Administrator to the Regional Administrators (November 9, 1981). This replaces the special/normal system with three new categories: major, moderate, and minor. The three categories will be used to determine the level of review for each revision. A major SIP revision will undergo the full 14-day review previously given special actions. A moderate SIP revision will be reviewed primarily by the appropriate offices within the Office of Air, Noise, and Radiation. A minor SIP revision will be reviewed primarily by the Regional Office. This categorization system should improve the flow of SIP revisions during Headquarters review and ensure that each revision receives the appropriate degree of review.

The recent organization changes in the Regional Offices should be helpful in resolving some of the intra-Agency difficulties in the review of SIP revisions. The inclusion of the enforcement elements into the Air and Hazardous Materials Divisions should consolidate the SIP processing and eliminate at least some of the difficulties that occurred in the past because of the lack of centralized responsibility.

The use of operating permits is also a promising possibility. It has been estimated that future SIP inventories could be reduced 30-50 percent if State operating permits could be made Federally enforceable without being submitted as SIP revisions. A concept paper has been developed by OAQPS on this topic but additional work is required before this could be implemented. In particular, there are some difficult legal problems that must be resolved. New Clean Air Act Amendments would also have an impact on this type of a program. Any action in the use of operating permits is contingent upon activity in these two difficult areas.

Definition of Significant Violator

One of the objectives of the Administrator's Accountability System for FY 1982 is that resources be used to address significant air violators and return them to compliance. This is designed to ensure that resources are used in the most environmentally beneficial manner. The purpose of this guidance is to assist Regional Offices and States in determining what the Agency considers to be a significant violator.

In determining whether a violation is significant, the nature of the pollutant should be considered, as well as the magnitude and duration of the violation and the population exposed. While no rigid formula need be followed, the following considerations should be kept in mind.

1. A violation of a hazardous air pollutant standard resulting in emissions above the standard should normally be considered significant unless the magnitude and duration of the violation are minimal and the violation nonrecurring.

2. A source in violation of a State implementation plan should be considered significant if the source is of sufficient size and is located so as to impact a nonattainment area. Sources above 250 tons per year emission potential

as defined in the Alabama Power case) should be considered significant violators unless the magnitude and duration of the violation are minimal and the violation generally nonrecurring. (To the extent that available data do not permit easy identification of sources in excess of 250 tons/year potential, sources with more than 100 tons/year actual emissions can be used as a reasonable surrogate.) Other sources in nonattainment areas should also be included if the amount of excess emissions is considered jointly by the Regional Office and State as having an important impact on the continued nonattainment of the area.

3. Sources in attainment areas and not impacting nonattainment areas would not normally be considered significant because of the lack of direct health impact. While States, appropriately, should take action to resolve such violations, EPA will not give them high priority consideration.

4. Sources in violation of new source requirements, including NSPS and PSD/NSR permitting requirements, should also be considered to be significant violators unless the magnitude and duration of the violation are minimal.

As provided for in the Agency's new accountability system, Regional Offices should meet with each of their States to jointly prepare an inventory of known significant

violators. States should be encouraged to take the lead with respect to as much of the universe as possible. Wherever possible, EPA should use its resources to supplement those of the State rather than to take the lead on cases itself. This technical assistance can be either in the form of direct case assistance (if requested) or through sponsoring of technical workshops and other program building/supporting activities. EPA should assume the lead only where a State cannot or will not take the lead, despite whatever assistance EPA can provide.

**Guidance Necessary To Remove Impediments to Enforcement
Against Stationary Source Violators.**

1. Comprehensive policy on why 113(a) orders issued to SIP, NPS, and NESHAP sources require compliance within 30 days of issuance. Final 3/1/82
2. Clarification on existing NCP guidance (4/2/81) that states that prior to conducting a settlement of NCP, a source must execute a consent decree or order. (With limited administrative remedies, this is interpreted by Region 1 as meaning all NCP subject sources must simultaneously have 113(b) action.) Final 1/15/82
3. Criteria that should be used in determining the appropriateness of enforcement action against a source for violations of a mass std. Final 6/1/82
(Draft to regions by 3/1/82)
4. Policy on enforcement action to be taken against sources which are in compliance with an applicable mass std. but in violation of VE std. Final 5/1/82
(Draft to regions by 3/1/82)
5. Guidance on EPA policy for addressing sources that are in violation but are on a non-federally cognizable state order. Final 3/31/82
(Draft to regions by 1/31/82)

**Guidance Necessary To Remove Impediments to Enforcement
Against Stationary Source Violators.**

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| 6. Given emphasis on EPA's overview role, guidance on its main direction and incentives and the degree to which EPA will defer to State enforcement related matters. | Final 3/31/82
(Draft to regions by 1/31/82) |
| 7. Guidance on soot blowing policy implementation. | Final 4/1/82 |
| 8. Clarification of EPA's excess emissions policy and its relationship to the SIP process. | Final 4/1/82 |
| 9. Policy on NSPS enforcement when NSPS std. or test method is questioned. | Final 4/1/82 |
| 10. Guidance on whether CEM data can be used in an enforcement action as documentation of a violation. | Final 5/1/82
(Draft to regions by 3/1/82) |
| 11. Guidance on enforcement action on O&M violations where no violations of emission limits have been documented. | Final 5/1/82
(Draft to regions by 3/1/82) |
| 12. Definition of continuous compliance considering what degree of tolerance should be allowed in evaluating a source's compliance with its emission limits. | Final 6/1/82
(Draft to regions by 3/1/82) |
| 13. Guidance on frequency of CDS reporting by the states. | Final 5/1/82 |

**Guidance Necessary To Remove Impediments to Enforcement
Against Stationary Source Violators.**

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| 14. Guidance on NESHAP asbestos standard analytic methods. | Final 8/1/82
(Draft to regions by 4/1/82) |
| 15. Guidance on the definition of "equipment and machinery" as specified in 40 CFR 61.22(e) and what constitutes a bituminous or resinous binder encapsulation for asbestos which is not friable. | Final 2/1/82 |
| 16. Guidance with regard to expiration of the temporary stay of the regulatory requirement that a physical or operational limitation on emission capacity must be federally enforceable in order to be taken into account in terms of offsets or PSD applicability. | Final 2/1/82 |
| 17. Guidance on method 9 revisions to include methods for reading opacity for intermittent emission sources. | Proposed rulemaking by 9/30/82 |
| 18. Guidance on federal enforcement of non-federally approved SIP violations. | Final 3/31/82
(Draft to region by 1/31/82) |
| 19. Guidance on federal enforcement of SIP violations when the SIP requirement has been superseded by a State reg that has not yet been approved by EPA. | Final 3/31/82
(Draft to regions by 1/31/82) |

IMPORTANT NOTES

2

**Definition of "Continuous Compliance" and
Enforcement of O & M Violations
(06/21/82)**

File at Part A, Document #2



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 21 1982

OFFICE OF
AIR, NOISE AND RADIATION

MEMORANDUM

SUBJECT: Definition of "Continuous Compliance"
and Enforcement of O&M Violations

FROM: Kathleen M. Bennett *Kathleen M. Bennett*
Assistant Administrator for Air, Noise and Radiation

TO: Directors, Air and Waste Management Divisions
Regions I-IV, VI-VIII and X

Directors, Air Management Divisions
Regions V and IX

The purpose of this memo is to provide you with some general programmatic guidance as to the meaning of the term "continuous compliance" and the role of operation and maintenance (O&M) requirements in assuring that continuous compliance is maintained. Of course, source specific guidance on O&M measures which can assure continuous compliance is an essential part of this program and this memorandum is not intended to substitute for such guidance. As you know, DSSE has undertaken a number of initiatives related to the continuous compliance effort and we hope to discuss the progress of those efforts with you at the upcoming workshop at Southern Pines. DSSE will be forwarding to you an updated summary of these activities prior to the workshop. However, given the continuing attention being given to "continuous compliance," I think it would be helpful to have a common understanding of what that concept entails.

In the strict legal sense, sources are required to meet, without interruption, all applicable emission limitations and other control requirements, unless such limitations specifically provide otherwise. However, of primary concern to the Agency are those violations that could have been prevented, through the installation of proper control equipment and the operation and maintenance of that equipment in accordance with proper procedures. We believe the concept of continuous compliance is essentially the avoidance of preventable excess emissions over time as a result of the proper design, operation and maintenance of an air pollution source. This includes avoidance of preventable instances of excess emissions, minimization of



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF ENFORCEMENT

MAY 11 1981

MEMORANDUM

SUBJECT: The Major Source Enforcement Effort

FROM: Richard D. Wilson
Acting Assistant Administrator For EnforcementTO: Regional Administrators
Regional Enforcement Division DirectorsIntroduction

As you know, the Major Source Enforcement Effort (MSEE) was launched in the fall of 1977 and for three years has been an Office of Enforcement top priority. The goal of the effort has been to identify and take enforcement action against major sources that have never achieved initial compliance with applicable regulations under the Clean Air and Clean Water Acts. Within this group of non-complying sources are some of the largest contributors to the nation's air and water pollution problems. These sources have in many instances been in violation for several years.

As outlined in some detail in this memorandum, we believe the effort has achieved much of its initial aim. While we must continue to direct efforts towards resolving those cases not yet resolved and tracking consent decrees resulting from previous efforts to assure compliance, we must also give greater recognition to the other challenges facing the air and water programs. As such, we are concluding the MSEE as a separate effort and remaining activities with respect to MSEE sources will be considered, as appropriate, in the context of the other air and water enforcement priorities facing the Regions and the States. However, given the degree of commitment by EPA and the States to this effort in the last few years, I think it appropriate to summarize for you the history of the effort and its results to date.

Background of the MSEE

The fundamental elements of the MSEE were first outlined for the Enforcement Division Directors in October 1977. For the effort to prove a success, it was recognized from the outset that the support and cooperation of the States, local agencies, and the Department of Justice (DOJ) would be essential. During October and November of 1977, Headquarters and Regional personnel met with State and local officials and DOJ personnel in each Region to secure their support and to brief them on the MSEE program. The Regional Offices later met with each of the States individually to compile lists of major violators and to make some preliminary decisions as to what kind of action was appropriate for each (judicial or administrative) and which Agency would be primarily responsible for the action, the State or EPA.

By April 1978, the MSEE list had been put into final form. It was composed of 2,134 major sources; 1,410 of which were air sources and 724 were water sources, excluding Publicly Owned Treatment Works (POTWs). (Since a few sources were listed as both air and water violators, the 2,134 figure includes some double-counting.)

Some significant features behind the numbers are:

- . Of the 2,134 air and water sources, 704 were planned civil actions; 10 were planned criminal actions; 924 were planned State or Federal administrative actions; and the rest were projected to come into compliance without further enforcement action.
- . The 704 planned civil actions were the core of the MSEE and of these, EPA was to take civil action against 597, the States against 107. All ten criminal actions were to be Federal.
- . 617 of the 704 facilities requiring judicial actions were industrial sources (as opposed to State, municipal, or Federal), and half of the 617 were clustered in certain key industries - power plants, iron and steel, pulp and paper, chemicals, petroleum refineries, and smelters. The other half were widely diverse.

Though the core of the MSEE centered around taking judicial action against these 704 sources (597 being EPA responsibility), much effort was also spent by EPA and the States in assuring that all 2,134 sources were brought expeditiously into compliance, or at least had action initiated that would result in compliance. In addition, as a result of constant efforts to refine the initial list, additional sources that met the MSEE criteria of never achieving initial compliance were subsequently added to the list thus causing the universe of 2,134 sources to grow by 260 sources.

Achievements to Date

Today, progress in getting all the MSEE sources into compliance has been significant. A summary of MSEE civil, criminal, and administrative activity by EPA and the States follows:

- . EPA civil actions against 677 facilities have been initiated, 395 air and 282 water. The status of these cases as of March 1981 is:

- cases against 384 (57%) facilities have been concluded
 - cases against 190 (28%) facilities have been filed but not concluded
 - cases against 103 (15%) facilities have been initiated and are pending further action

- . EPA criminal actions have been initiated against 4 facilities, 2 air and 2 water. The status of these cases as of March 1981 shows 2 filed and 2 concluded.

- . State civil actions against 78 facilities have been initiated, 28 air and 50 water. The status of these cases as of March 1981 is:

- cases against 59 (76%) facilities have been concluded
 - cases against 2 (2%) facilities have been filed but not concluded
 - cases against 17 (22%) facilities have been initiated and are pending further action

- . The remaining 1,635 MSEE sources were either targets for EPA or State administrative action or came into compliance without any such action. The current status of these sources, as of March 1981, shows 1,170 sources in final compliance and 465 sources proceeding on a timetable to come into compliance or otherwise expected to come into compliance in the near future.

This effort is even more impressive when it is recognized that many sources outside the MSEE universe were subject to State or EPA civil litigation during this same period. For example, EPA initiated actions against 382 such sources, of which 225 (59%) have now been concluded, 54 (14%) have been filed but not concluded, and 103 (27%) have been initiated and are pending further action. Thus, looking at the Federal litigation picture over the past three years shows civil actions initiated against 1,059 facilities, 81% of which are filed or concluded. (See Attachment A for a discussion of settlements reached with a few of the most significant MSEE sources.)

Future Efforts

The MSEE effort began with several thousand sources not equipped with adequate pollution controls. Now, most of these sources have installed or are installing the necessary equipment to control their pollution. With this accomplishment, the Agency's enforcement program is intensifying its efforts in working with States to ensure continuing compliance, to address new source violators, and to assure municipal source compliance. In order to assure the full benefit of the gains of the MSEE, these new efforts will be balanced against the need to follow through with MSEE cases already initiated and to continue tracking court decrees to assure final compliance.

Future activities of the water enforcement program will focus primarily on non-complying municipal permittees. Several components of this new thrust are: 1) a new national enforcement Municipal Management System (MMS), 2) a revised Municipal Enforcement Policy for bringing civil actions where warranted, and 3) a Continuous Compliance Program to insure that, once constructed, facilities built with public funds continue to operate within design and permit limitations.

The aim of MMS is to give the States and the Regions an operational framework within which to coordinate permits and grant conditions and activities so that construction proceeds according to schedule and each plant can meet its final limits when completed. It hopes to achieve the greatest amount of improvement in municipal construction and compliance by directing its resources on those facilities located in the most capital intensive urban areas. Under the Continuous Compliance Program, a plant experiencing serious effluent violations will be ordered to hire a private engineering firm to analyze the plant's operating procedures. The firm will then develop a Composite Correction Plan (CCP) which is designed to follow the plan at their own expense unless they need to solve design problems. The Municipal Enforcement Policy aims to secure maximum pollution abatement by accelerating construction, and making noncompliance less attractive than compliance. In this respect, judicial actions will seek penalties for past violations, a court-imposed compliance schedule, interim effluent limitations, and separate penalties for any future violations.

A major focus of future activities of the stationary air enforcement program will be directed around efforts to ensure continuing compliance. Recent National Commission on Air Quality (NCAQ) studies show that the failure of sources which have achieved initial compliance to meet emission limits on a continuing basis is an air quality problem of growing concern. One particular NCAQ study of air pollution sources showed that 128 of 180 sources reported as complying with air standards had documented incidents of excess emissions resulting in a cumulative

annual excess of 25 percent over the allowed emissions level. To address this serious problem, DSSE will be launching a continuous compliance study to investigate new means of surveillance, improved inspection techniques, more use of continuous emission monitoring, better permitting requirements, targeting problem sources, expanded uses on penalty authorities and other techniques to improve the ability of EPA and the State to deal with the challenge of ensuring continuing compliance. Additional areas of emphasis in the air enforcement program will be an intensification of efforts to enforce against significant sources in violation of NESHAPs, NSPS and other new source requirements, and new Part D SIP requirements.

All of this new activity under both the air and water programs should result in better self monitoring of sources, provide more consistent application of laws nationwide, and assure that full benefit is obtained from existing controls. This in turn will lessen the burden on all regulated sources to install additional controls while still resulting in a cleaner, healthier environment.

Attachment

ATTACHMENT A

Jones and Laughlin Steel Corporation

In January 1981, the U.S. Environmental Protection Agency signed a consent agreement with Jones and Laughlin Steel Corporation which will bring air and water pollution sources at six steel plants in three states into compliance with applicable air pollution control regulations by December 31, 1982, and with applicable water pollution control regulations by April 30, 1983. The six steel plants covered by the pollution abatement agreement are the Pittsburgh and Aliquippa works in Pittsburgh and Aliquippa, Pennsylvania; the East Chicago works in East Chicago, Indiana; the Cleveland Works in Cleveland, Ohio; and the Brier Hill and Campbell works, in Youngstown, Ohio.

The compliance agreement calls for installation of air and water pollution controls at the companies' coke batteries, blast furnaces, basic oxygen furnace shops, electric arc furnaces and ancillary steel making facilities. In addition, the agreement calls for modernization of coke producing capacity at the East Chicago, Indiana works, which will result in more efficient steel production. Also under the agreement, Jones and Laughlin has agreed, in lieu of being assessed a \$10 million civil penalty, to install pollution controls that afford greater environmental benefit to the public than currently required under law.

The agreement will result in significantly cleaner air for citizens in those areas surrounding the plants in Pennsylvania, Indiana, and Ohio, and water quality in those areas will also greatly improve. The total capital cost of the pollution abatement agreement may reach \$350 million, depending upon the companies' success in demonstrating the effectiveness of less costly pollution control measures.

National Steel Corporation

In October 1980, the U.S. Environmental Protection Agency signed an agreement with National Steel Corporation to bring company plants in three States into compliance with all air and water pollution control requirements by the end of 1982. The agreement affects one plant in Weirton, West Virginia, one plant just outside Detroit, and one facility in Granite City, Illinois, just north of St. Louis.

The settlement incorporates National's plans for modernization and replacement of several basic steelmaking processes. It will maintain the economic stability of the affected facilities, while protecting the health of citizens in surrounding communities by reducing particulate emissions nearly

79 percent at the Detroit plant and 80 percent at the Granite City facility. Significant reductions in particulates will also occur at the Weirton plant. The agreement also requires that the Detroit plant expand its maintenance and monitoring programs to improve performance of its water pollution treatment system. (In 1979, EPA and National agreed upon a program for water pollution control at the Weirton plant).

Company estimates put the total cost of the agreement at the three plants at \$180 million. Potential liability for past violations at the three plants will be offset through the application of more pollution controls than would otherwise be required.

U.S. Steel - Monongahela River Valley

. In one of the biggest environmental control agreements in steel industry history, U.S. Steel, the nation's largest producer, agreed in May of 1979 to bring nine of the company's western Pennsylvania plants into compliance with air and water pollution regulations by the end of 1982. The agreement was reached between U.S. Steel and the U.S. Environmental Protection Agency, the U.S. Department of Justice, the Commonwealth of Pennsylvania, and Allegheny County, Pa. The Pittsburgh-area and western Pennsylvania facilities covered by the agreement are the Clairton Works, both plants of the National-Duquesne Works, both plants of the Edgar Thomson-Irvin Works, Homestead Works (including Carrie Furnaces), the Vandergrift plant, the Saxónburg sinter plant and Johnstown Works.

The agreement covers approximately \$400 million of air and water pollution control projects, including a number of control projects already under construction. The \$400 million of expenditures are in addition to more than \$200 million which U.S. Steel has already spent or committed to air and water quality projects in the Pittsburgh area. The planned result of the agreement is nearly a 50 percent reduction in remaining particulate emissions in the Pittsburgh area. Overall, the agreement will result in a reduction of particulate emissions from the plants covered by approximately 22,000 tons per year. In improving water quality, the decree will result in a 90 percent reduction in the discharge of remaining water pollutants from the plants covered, including suspended solids, phenols, cyanide, ammonia, oil and grease, and acidic alkaline solutions.

Ohio Edison Company

On January 19, 1981, the government lodged two separate consent decrees with the appropriate U.S. District Court involving the Ohio Edison Company. One decree settled an action filed against this source in August 1978, for particulate mass and visible emissions at its Sammis plant, one of the largest particulate polluting facilities in the entire country. Under the

terms of the agreement, Ohio Edison will install controls to bring all seven units at the plant into compliance with the applicable regulations and will pay a civil penalty of \$1.35 million. Additionally, the company agreed to reduce emissions at the three largest units to a level 25% below the level required for compliance for a period of ten years. Once compliance is achieved, the agreement will result in a reduction of at least 60,000 tons of particulate emissions annually from the estimated levels which existed when EPA initiated enforcement action in 1976.

The second decree covers ten other facilities owned and operated by Ohio Edison. The company committed to bringing all of these facilities into compliance with particulate mass and visible emissions limitations, and agreed to pay a civil penalty of \$150,000.

Tennessee Valley Authority

In December 1978, the Environmental Protection Agency, ten citizen health and environmental organizations and the States of Alabama and Kentucky announced a final settlement agreement to clean up air pollution at ten of TVA's electric power plants in the Southeast. A consent decree covering TVA's electric generating plants located in the States of Tennessee and Kentucky was entered on December 27, 1980. Entry of the decree had been delayed due, in part, to the intervention of several distributors of TVA power. A consent decree covering TVA's electric generating plants in the State of Alabama was entered on October 15, 1979. Under the agreement, all TVA facilities are required to meet air pollution standards by the end of 1982, with a number of interim steps required to control air pollution.

The settlement requires TVA to install scrubbers at some plants and burn less polluting coal at other plants. The scrubber requirements will allow TVA to burn Eastern coal, which often has a higher sulfur content. Particulate pollution controls are also required where needed. The settlement will mean a reduction of more than 970,000 tons of sulfur dioxide and 85,000 tons of particulate emissions a year.

Michigan: City of Detroit, Detroit Water & Sewerage Department

On May 6, 1977, EPA, Region V, through the U.S. Attorney for the Eastern District of Michigan, filed a complaint against the City of Detroit for violation of its NPDES permit. These violations included failure to comply with:

1. The effluent limitations for biochemical oxygen demand (BOD) (5-day, 20°C), suspended solids, phenol, oil, coliform bacteria, total phosphorous;

2. Monitoring requirements;
 3. Facilities operation and maintenance requirements;
- and
4. Preparation and submission of a "Facilities Plan" detailing the future needs for pollution abatement facilities in the Detroit service area.

After months of negotiations the parties reached an agreement and a Consent Judgment was entered by Judge John Feikens on September 14, 1977. Among other things this Judgment provided for: the development of a user charge, Industrial Cost Recovery and Local Capital Cost Funding System; an approved Industrial Waste Control Plan on or before March 1, 1978; approved Facilities Plan by May 15, 1978; the increase of the effective capacity for secondary treatment on or before September 1, 1980, as well as a schedule of increasingly more stringent effluent limitations; the design and construction of a phosphorous removal system at the treatment plant. In addition to this Consent Judgment Judge Feikens also appointed a Special Master to have all grievances with regard to increased sewerage service rates charged to any community by Detroit and under decisions on such matters by March 31, 1978. Upon the entry of this Consent Judgment, the Court also ordered that some \$399 million in FY 76 Federal construction grant monies be reserved for construction projects in the Detroit area.

The terms of the Consent Judgment went into effect in December 1977. Investigation by EPA revealed that Detroit was violating the second set of effluent limitations. Region V filed a motion for a show cause hearing concerning Detroit's reasons for noncompliance. A hearing was held in early November 1978. The judge ordered a court-appointed monitor to review the plant; its noncompliance and Detroit's ability to comply. After a 30-day review the monitor issued a report citing many inadequacies in the plant's staffing, procurement policies and its operations and maintenance. Subsequently a five-day hearing was held on this report and the court rendered a decision on March 22, 1979. At that time the court ordered Detroit's Mayor Coleman Young to appoint an Executive Administrator to run the City's municipal sewerage program and implement the provisions of the Consent Judgment. After a lengthy search Mayor Young appointed Joe Moore, formerly of the Federal Water Quality Administration. The City is currently trying various methods to get their treatment system to full capacity.

United States Steel, Lorain, Ohio

This was an action filed for civil penalties and injunctive relief against the United States Steel Corporation pursuant to Section 309 of the Clean Water Act, 33 U.S.C. 1319, for allegedly

unlawful discharges of pollutants into the Black River. In particular, U.S. Steel was alleged to have failed to install a blast furnace recycle system at its Lorain facility by July 1, 1977. U.S. Steel was also alleged to have unlawfully by-passed certain elements of its coke plant recycle systems on various occasions, resulting in violations of its NPDES permit.

The case was settled by consent decree entered on June 27, 1980. The decree required U.S. Steel Corporation to install a blast furnace recycle system and to upgrade treatment at its coke plant and at its pipe mill lagoon to meet the effluent limitations prescribed by its NPDES permit in accordance with the compliance schedule contained in the decree.

The decree provides that U.S. Steel will spend \$4 million over four years on a dust suppression program to avoid the payment of civil penalties. Such expenditures are intended by the parties to be net expenditures after calculation of any tax benefit. The decree also provides for stipulated penalties of \$7,500 per day for failure to comply with the terms of the consent decree.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 27 1983

OFFICE OF
AIR, NOISE AND RADIATIONMEMORANDUM

SUBJECT: FY '83 Regional Air Compliance Program Evaluation

FROM: Director
Stationary Source Compliance Division
Office of Air Quality Planning and StandardsTO: Director, Air and Waste Management Division
Regions II-IV, VI-VIII and XDirector, Air Management Division
Regions I, V and IX

As you are aware, the Stationary Source Compliance Division (SSCD) is planning to resume its formal evaluation of Regional air compliance programs. In a February 22, 1983, memorandum to you, I explained how we were restructuring the evaluation to include a self-evaluation component in the form of a questionnaire and asked for your comments on this questionnaire and the proposed evaluation process.

We have now received comments from all Regions and are pleased to announce that the proposed approach and questionnaire was well-received. Your input was extremely helpful and is reflected in several modifications to the questionnaire which is attached in final. Although we attempted to address all comments some deserve clarification. A couple of Regions commented on our need to ask for information on each inspector's position classification, academic background and training. We have restructured this question to provide only copies of inspection reports as an example of their ability to perform quality work (See Objective B, #4). However, we may ask these questions should the need arise on a Region specific basis in our follow-up. Several Regions wanted to know how this exercise related, or could relate, to the National Air Audit System (NAAS) being developed by OAQPS. This evaluation is distinct from the NAAS because it evaluates the Regional air compliance program not the State's. We have taken efforts to design this evaluation so it does not duplicate the NAAS. Because of this, we have dropped the questions on delegated programs. Two Regions asked us to provide copies of all CDS guidance. An update to ~~our November 1980 compendium of CDS guidance memoranda will be~~ provided under separate cover. Lastly, we received two

interesting comments. One said the questionnaire was too long and the other gave examples of additional questions we should ask. Consideration of length and coverage was given in this exercise and we feel all questions, as finalized in this memorandum, should be answered to provide both our offices a good, and hopefully healthful, snapshot of the Regional air compliance programs. Should any Region desire to provide additional information, including what Headquarters could do to improve the compliance program, please do so in your transmittal memorandum to the questionnaire.

As noted in my February 15 memorandum, we intend to begin the evaluation process by sending the questionnaire to two pilot Regions for the purposes of working out any unforeseen problems and to gain some experience. This will be followed up by an announced visit with a set agenda and a final report. The Regions selected are Regions II and VIII. We will initiate the evaluation process in the other Regions via a separate memorandum in the coming months. We hope to get to all Regions by the end of this fiscal year as originally planned but we may have to settle for the end of the calendar year 1983.

I would like to thank you for your cooperation and constructive comments on this program. If this evaluation proves as productive as previous years, it should result in improvements to both Headquarters and Regional air compliance activities and enhance national consistency.

If you have any questions or comments, please contact me or Steve Hitte of my staff at FTS 382-2829.



Edward E. Reich

Attachment

cc: Regional Administrators, Regions I-X
Air Program Branch Chiefs, Regions I-X
Air Compliance Branch Chiefs
Regions II, V, VII, IX
Bern Steigerwald, OAQPS

ATTACHMENT

STATIONARY SOURCE COMPLIANCE DIVISION FY 83 REGIONAL AIR COMPLIANCE PROGRAM EVALUATION QUESTIONNAIRE

Introduction

An important function of the Stationary Source Compliance Division (SSCD) is to evaluate Regional air compliance programs to assure that EPA, through its Regional Offices, is meeting its compliance responsibilities under the Clean Air Act (hereafter "Act"). This questionnaire provides each Regional Office with an opportunity to examine its compliance program while also providing SSCD with sufficient information to perform an independent evaluation.

A description of a Regional compliance program objective precedes each set of questions in this questionnaire. SSCD will use each objective as the basis to measure the adequacy of that component of a Region's compliance program. SSCD asks each Regional Office to support its responses to the questions by attaching copies of Regional memoranda or guidance it has provided to State or local agencies whenever such information exists. Decision flow charts which are accompanied by adequate narrative explanations are an acceptable method of responding to some questions. SSCD intends this questionnaire to address all of the air programs including SIP, PSD, NSPS, NSR and NESHAP. When a Region's response to a question will vary under different air programs, the Region shall provide all of the possible answers.

A Region should direct any questions it has concerning this questionnaire to Steve Hitte of SSCD at FTS 382-2829.

Objective A: Comprehensive Inspection Coverage

EPA guidance requires all NSPS, NESHAP and Class A-1 SIP sources to be inspected annually. All Class A-2 SIP sources must be inspected biennially.

1. What percentage of the sources in the Region received the required inspection(s) in the past two fiscal or calendar years (denote time frame used)?
2. If your answer to the preceding question is one-hundred percent, please describe the information your response is based upon.

Only those Regions with responses to question number one of less than one-hundred percent are required to answer the following five questions.

3. Why were sources not inspected by EPA or the State as required by EPA's guidance?

4. How does the Region plan the inspection responsibility each year among State and local agencies and itself?
5. How does the Region track State and local agency inspection progress to assure that those agencies are performing their allocated inspections?
6. How frequently does the Region assess State and local agency inspection progress?
7. What corrective action will the Region take when a State or local agency fails to achieve adequate progress in performing its allocated inspections?

Objective B: Competent Source Inspections

Regional Offices are responsible for assuring that their inspectors and those at State and local agencies are performing inspections which are sufficient to accurately assess a source's compliance status. In addition to observing visible emissions and collecting data from a source's records, inspectors should be able to assess a source's likelihood of continuing to comply with emission requirements e.g. source program designed to maintain continuing compliance (see K. Bennett memorandum of June 21, 1982). Inspectors should recognize substandard operation and maintenance practices, or physical symptoms of inadequate operation and maintenance, which warrant source testing or a more in-depth compliance assessment.

1. How does the Region assess the adequacy of inspections performed by Regional and State and local inspectors? Please attach a copy of any guidance the Region has distributed internally or provided to State and local agencies regarding this matter.
2. How frequently does the Region assess the adequacy of Regional and State and local inspections?
3. What actions has the Region taken, or plan to take, to improve the quality of source inspections?
4. How many Regional EPA employees perform inspections for the air program?
5. For each Regional EPA employee that performs inspections for the air program, please provide an inspection report written by the inspector which you believe best illustrates his or her technical competency in performing source inspections (the number provided should match the number to previous question).

6. Of the Regional EPA employees that perform inspections for the air program (does not include contractor inspections), please state the number of employees that are capable of competently performing each of the following three levels of inspection (these inspection levels are not necessarily related to any national guidance on inspections nor are they meant to imply that any one level is not acceptable):

Number of
Employees

Level I

Inspections consisting principally of a review of the Region's or State's file on the source and an on-site visible emission (Method 9) observation or a collection of simple plant operating parameters and a brief tour of the plant to observe its process and control equipment (known as a walk-thru inspection). _____

Level II

Inspections consisting principally of a review of the Region's or State's files for the source and an on-site inspection of the sources process and control equipment to determine:

1. proper operation and maintenance using a standard checklist. This checklist should include reviewing calibration and operation records, CEM maintenance records, etc.; and
 2. emission levels based on a materials balance, engineering calculations, grab samples, or observing compliance tests.
- _____

Level III

Detailed inspections that are performed as a follow up to a previous action where litigation is likely. These inspections would consist principally of gathering detailed, engineering data necessary to confirm a violation. The inspector should be able to identify control problems and potential solutions, be an expert witness should the need arise and contribute significantly to drafting the technical portion of a litigation report (relatively few inspectors would qualify for this level).

7. Of all air inspections performed by EPA personnel over the last 12 months, approximately what percent were Level I, Level II, or Level III (a file search of every EPA inspection is not required)?

Level I-
Level II
Level III

Objective C: Regional Procedures for Reviewing State and Local Agency Compliance Activities

A Regional Office is responsible for managing a compliance program that is effective in expeditiously bringing all of the sources in the Region into sustained compliance. States are primarily responsible for enforcing air pollution requirements and EPA's policy is to defer federal enforcement whenever a State has demonstrated a desire to remedy a violation. This policy promotes strong State compliance programs which are essential to meet the objectives of the Act. When a State is ineffective in expeditiously bringing a violating source into compliance, however, EPA must meet its obligations under the Act and initiate federal enforcement against the violating source.

To effectively manage source compliance, a Regional Office must operate a comprehensive overview program for tracking States' progress in resolving violations which initially do not directly involve an EPA enforcement action. Through effective overview, a Regional Office is able to discover violating sources which require federal enforcement because the State has not expeditiously brought the sources into compliance. An effective Regional overview program often provides an incentive for State and local agencies and violating sources to work together to achieve compliance in an effort to avoid a federal lawsuit.

1. How, and at what frequency, does the Region learn of violations that State and local agencies discover during their source inspections and tests?
2. How, and at what frequency, does the Region learn of violations that are indicated in malfunction reports, continuous emission monitoring data, and other information sources report to State and local agencies?
3. What criteria has the Region and the State and local agencies agreed upon to decide which agency will remedy a violation? Please attach copies of any written agreements.
4. How, and at what frequency, does the Region assess whether State and local agencies are achieving adequate progress in quickly bringing violating sources into compliance or placing those sources on expeditious compliance schedules?

5. How, and at what frequency, does the Region assess whether violating sources are complying with the increments of progress of a State compliance schedule?
6. What criteria does the Region use to decide that a State or local agency's efforts to bring a violating source into compliance are inadequate and that a separate federal action is needed to place a source on a compliance schedule, remedy a source's failure to meet an increment of progress in a State compliance schedule, or otherwise bring the violating source into compliance?
7. How does the Region assure that Significant Violators are achieving adequate progress to come into compliance?
8. The NSPS, NESHAP and PSD programs provide to some degree for continuing compliance of certain requirements and direct reporting of violations of emission requirements.
 - A. What action is taken in response to receiving a source report indicating violations of applicable emission requirements?
 - B. Does this response vary from program to program?
 - C. If yes, how?
 - D. How are violations of NESHAP requirements treated?
 - E. What is the procedure for dealing with violations of the NSPS program?
 - F. What is the procedure for handling violations of PSD, if different from the existing source program under the SIP?

Objective D: Expeditious Regional Case Development

The possibility of federal enforcement often provides State and local agencies with the leverage they need to negotiate a compliance agreement with a violating source. It must be clear to a source that its failure to negotiate an acceptable settlement with a State or local agency will subject it to certain, swift federal enforcement action. Further, an expeditious Regional compliance program often prompts timid State and local agencies to effectively address violating sources. State and local agencies often prefer to address violating sources once they are faced with a decision to initiate an enforcement action or compromise their authority by subjecting a source to a rigorous federal enforcement action.

A Region's case development procedure must be a deliberate, systematic process that efficiently gathers the required evidence and fosters expeditious decisions. An ad hoc, unstructured Regional case development procedure fosters a lax attitude regarding compliance among sources and State and local agencies.

To adequately deter violating sources, a Region's reaction to a violation must be effective and predictable.

1. What procedure does the Region use to decide the appropriate enforcement response for a violation? For each of the following enforcement responses, please identify the offices within the Region that are involved in the decision and the office that makes the final decision:
 - A. 114 inquiry;
 - B. NOV;
 - C. NON;
 - D. 113(a) and (d) administrative orders;
 - E. 167 order;
 - F. 113(b) civil action;
 - G. 113(c) criminal action;
 - H. Settlement of penalties; and
 - I. Settlement of compliance.
2. When a Region initiates an enforcement action, it often has an opportunity to exercise its discretion in deciding which type of enforcement action is appropriate. Two of the several possible enforcement alternatives are a criminal action under Section 113(c) of the Act, or a penalty under Section 120 of the Act. In general, the Regional Offices use these two alternatives less frequently than other enforcement responses. Please describe the characteristics of the violators and violations which the Region believes are appropriately addressed by each of these two enforcement alternatives. Your response need not include the statutory criteria associated with the enforcement alternatives. Rather, we are interested in learning the criteria the Region uses when it exercises its discretion and selects an appropriate enforcement response for a violation.
3. What procedure does the Region follow to develop and send an NOV to a violating source? How does the Region implement the February 10, 1982, and September 15, 1982, guidance regarding pre-NOVs?
4. How does the Region obtain the information required to document a violation that extends beyond the thirtieth day after it issued the NOV?
5. How many NOVs did the Region issue in FY 82 and FY 83 to date?
6. What percentage of the total number of Regional NOVs issued

in FY 82 and FY 83 to date were subject to one of the following actions within 90 calendar days after issuance of the NOV:

- A. An action adequate to assess whether the alleged violation(s) extends thirty days after the Region issued the NOV;
 - B. An NOV withdrawal; or
 - C. Regional deferral to a State or local agency's enforcement action concerning the violation(s) the NOV addressed.
7. For each NOV the Region issued in FY 82 and FY 83 to date, please list the number of calendar days that elapsed between the date of the violation cited in the NOV, and the day the Region issued the NOV.
8. What procedure does the Region follow to continue to involve compliance personnel in a case after the Region refers a litigation report to EPA Headquarters? Attach any written agreements which define the relationship between compliance personnel and the Regional Counsel during litigation of a case.
9. How, and at what frequency, does the Region assess whether violating sources are complying with the increments of progress of Federal court orders or compliance schedules?

Objective E: Effective Use Of SSCD Level-of-Effort Contract Funds

SSCD provides level-of-effort (LOE) contract funds to the Regional Offices to assist them in meeting their compliance responsibilities. The LOE contract mechanism is easy for the Regions to manage and provides timely access to several talented firms that have substantial experience in stationary source compliance work. A Regional Office is responsible for effectively using its contract funds to achieve source compliance within the Region. To effectively use contract funds, a Region must plan its expenditures at the beginning of a fiscal year by determining Regional needs in conjunction with State and local agencies and establishing funding priorities. A Region's inordinate expenditure of contract funds at the end of the fiscal year is often symptomatic of poor Regional contract management because the expenditures are frequently prompted by the Region's desire to quickly spend remaining funds rather than to address unanticipated projects.

1. Please describe the process the Region uses to plan its expenditure of LOE contract funds. Identify the Regional personnel involved in the planning process and indicate who is responsible for final planning decisions. Explain how State and local agencies are involved in the planning

process, if at all, and attach any written information the Region provides to those agencies regarding contract funds planning.

2. What process does the Region use to prepare Work Assignments under the LOE contract mechanism? Identify the personnel that must concur with a Work Assignment and indicate who has final responsibility in the Region for approving Work Assignments. Is there one staff person that coordinates all Work Assignments? Attach any written procedures the Region has prepared to assist Regional personnel in preparing Work Assignments.
3. Please describe the process the Region uses during the year to reevaluate its plans for contract expenditures because of changes in Regional priorities.

Objective F: Accurate Maintenance of CDS

CDS has a variety of essential uses including supplying the data the Agency uses for evaluating compliance program progress, planning, resource allocations, and reporting to Congress and the public. A Regional Office is responsible for implementing SSCD guidance on CDS which includes, among other things, assuring that the inventory of sources in CDS is continually updated, that all source-specific data are accurate and complete, and pollutant-specific information is maintained for violating NSPS, NESHAP, and A-1 SIP sources.

1. What procedures does the Region employ to assure that the inventory of sources in CDS is up-to-date? Specifically address the accuracy of the VOC source inventory.
2. Does the Region exclude from CDS any sources that Headquarters' guidance requires to be included in CDS?
3. How, and at what frequency, does the Region assess whether the source-specific data in CDS are up-to-date and accurate? Explain what specific data the Region keeps up-to-date and, if less than SSCD guidance requires, why certain data are not accurate.
4. What information does the Region and the States require before assigning a source an "in violation" compliance status description (SCMS) code of either one or six?
5. What basis or criteria does the Region use to assign a source an "unknown" compliance status description (SCMS) code of zero or seven?
6. Please attach any guidance regarding CDS reporting which the Region has developed and provided to State and local agencies.

Objective G: Effective Use of Program Grants

Air program grants under Section 105 of the Act are available to assist States in meeting their compliance responsibilities. A Regional Office is responsible for identifying areas of State and local agencies' compliance programs which could benefit by a grant, issuing grants for the areas that are consistent with the priorities of the air grant management system, and evaluating an agency's progress in achieving the compliance provisions of the grant.

1. Compliance activities receive a high priority in the air grant management system. How does the Region identify and establish priorities for areas of State and local agency compliance programs that could benefit by EPA funding under an air program grant? You need not explain how the Region establishes funding priorities for programs other than State and local agency compliance programs. Please identify the office(s) within the Region that are involved in the process and the office that has final responsibility for establishing compliance priorities.
2. What process does the Region use during mid-year and final reviews to evaluate a State or local agency's progress in achieving the compliance provisions of an air grant? Please identify the office(s) within the Region that are involved in the process and the office that has final responsibility for the compliance evaluation.
3. Please attach copies of the FY 83 compliance grant conditions for each State in the Region. You need not submit the entire grant document.

Objective H: Full Use of Air Compliance Resources

Each Region is responsible for using all of the workyears allocated to it in the stationary source compliance decision unit (A306) to achieve EPA's air compliance objectives.

1. Please list the position classification (engineer, scientist, clerk-typist), location within the Regional organization, type of employment (PFTE, OPFTE), and workyears (to tenths of a workyear) for each employee represented by the FY 83 A306 decision unit. Please identify the employees that perform inspections for the air program.

IMPORTANT NOTES

3

Compliance Strategy for Stationary Sources of Air Pollution
(11/14/83)

File at Part A, Document #3



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

November 14, 1983

OFFICE OF
AIR, NOISE AND RADIATION

SUBJECT: Compliance Strategy for Stationary Sources of
Air Pollution

FROM: *Sheldon Meyers*
for Joseph A. Cannon, Acting Assistant Administrator
for Air and Radiation

TO: Alvin Alm, Deputy Administrator

Attached for your consideration is the final compliance strategy for stationary sources of air pollution. This document was developed by OAR's Stationary Source Compliance Division, working closely with the Office of Enforcement Counsel and with review and input by other Headquarters offices, Regional Offices, and selected State officials.

The strategy brings together in one document all of the major thrusts of the stationary source compliance program, with continued emphasis on resolution of those violating sources meeting the definition of a "significant violator". I believe there is a general consensus that the present program is sound and should continue to serve us well in the future. However, the strategy suggests three major changes for the immediate future: more flexibility for States in carrying out their inspection programs, increased use of continuous emission monitoring and similar techniques in the Agency's regulatory and enforcement programs, and increased focus on sources violating volatile organic compound (VOC) provisions in SIPs to reduce both ozone levels and air toxicants.

The major point of disagreement arising during the preparation of the strategy was the proposed revision to the inspection guidance to States. Present guidance requires annual inspection of major (Class A1) sources and biennial inspection of certain smaller sources (Class A2 sources). The draft strategy suggested allowing States to develop alternative inspection priority schemes whereby the resources otherwise required to inspect Class A2 sources could be redirected to inspection of any combination of Class A1, Class A2, and other regulated sources, as air quality needs warranted. Regional Offices were substantially divided

on the extent to which present guidance should be revised. After a careful consideration of all the comments, we believe that the revision contained in the strategy strikes a reasonable balance between EPA's need for a nationally-consistent data base to monitor and evaluate the effectiveness of the program and the needs of State and local agencies to make optimal use of limited resources to address their most serious air quality problems.

The strategy identifies our plans to provide supplementary detailed guidance for selected subjects to enhance the long-term effectiveness of the strategy. Attached is an identification of guidance documents to be produced and anticipated completion dates.

As agreed in our October 12 briefing for you, the major subject area needing further exploration is the problem of assuring continuous compliance by air sources. The strategy already identifies certain approaches worth pursuing (e.g., greater use of continuous emission monitoring and better targeting of inspections) but we intend to do a separate, more extensive continuous compliance strategy as a follow-up to the general strategy. Because of the complexity of this issue, the continuous compliance strategy cannot hope to present "the answer" to the problem but will provide a comprehensive program for developing answers. We are targeting to complete the continuous compliance strategy by February 27, 1984, and we are proceeding to add a commitment along these lines to the Action Tracking System.

I thank you for your support in the development of this strategy and look forward to your support in its implementation.

Attachments

IDENTIFICATION OF ADDITIONAL GUIDANCE TO BE PREPARED

- (1) enforcement of VOC standards - guidance on improving the VOC inventory projected for completion by January 30, 1984. Additional guidance as needed.
- (2) use of unannounced inspections by EPA - projected for completion by September 30, 1984.
- (3) use of continuous emissions monitoring excess emissions data in the compliance program - projected for completion by July 31, 1984.
- (4) enforcement of asbestos demolition standards - projected for completion by July 31, 1984.
- (5) enforcement of PSD requirements - projected for completion by November 30, 1983.
- (6) enforcement of benzene, arsenic, and radionuclides NESHAPs - as necessary prior to promulgation.

Compliance Strategy for Stationary Sources

Lists of Attachments

- Attachment 1 The Major Source Enforcement Effort --
May 11, 1981
- Attachment 2 Definition of Significant Violator --
See I, E, Attachment
- Attachment 3 Guidance Concerning EPA's Use of
Continuous Emission Monitoring Data --
See VI, D
- Attachment 4 Significant Violators -- See I, E
- Attachment 5 Enforcement Action Against Stationary
Air Sources Which Will Not be In
Compliance By December 31, 1982 --
See V. R
- Attachment 6 Guidance on Implementation of 1982 Deadline
Enforcement Policy Issued September 20,
1982 -- See V, S
- Attachment 7 Guidance on Use of Section 303 of the
Clean Air Act -- See IX, A
- Attachment 8 Duration of Section 113(a) Orders --
See V, O
- Attachment 9 Procedures for Review of Federal Register
Publication of Delayed Compliance Orders
Under Section 113(d) of the Clean Air Act --
See V, T
- Attachment 10 Use of Section 120 Noncompliance Penalties
to Promote Compliance by Stationary Sources --
See VII, I
- Attachment 11 Enforcement of National Emissions
Standard for Vinyl Chloride -- See IV, D
- Attachment 12 FY '83 Regional Air Compliance Program
Evaluation

COMPLIANCE STRATEGY

FOR

STATIONARY SOURCES

OF

AIR POLLUTION

NOVEMBER 1983

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ATTACHMENTS

EXECUTIVE SUMMARY

This document outlines a strategy for obtaining and maintaining compliance by stationary sources with requirements of the Clean Air Act and implementing regulations. The Clean Air Act is the Federal law designed to protect the nation's health and welfare from the adverse effects of air pollution.

The stationary source compliance program is structured around effective, cooperative, and coordinated efforts among Federal, State, and local agencies. The strategy recognizes both the primary role of the States in prevention and control of air pollution and that of the Federal government in ultimately assuring the protection of the health and welfare of the American public.

The major focus of the stationary source compliance program is on the enforcement of State Implementation Plan (SIP) requirements adopted to meet national ambient air quality standards (Section 110), standards of performance for new sources (Section 111), and hazardous air pollutant standards (Section 112). SIP requirements are State-adopted and EPA-approved. New source performance standards and hazardous air pollutant standards are Federally-promulgated but can be (and usually are) delegated to States.

A major element of the compliance program is the periodic determination of a source's compliance status. In general, State and local agencies have the lead in making such determinations with the data reported to EPA for incorporation into the Agency's Compliance Data System. EPA is working with representatives of State and local agencies in developing an EPA program for auditing State compliance and enforcement activities.

The basic method of compliance determination is an onsite inspection. Stack testing is usually required only for a source's initial demonstration of compliance and is not usually required as part of a routine inspection. Due to technical and cost considerations, continuous emission monitoring has historically played only a limited role in the air program. This creates problems in obtaining data truly reflective of the day-to-day operations of a source. This strategy suggests a broader

use of continuous emission monitoring, recognizing that many of the earlier problems have been resolved and that such data can be an invaluable source of information.

EPA provides guidance to States on inspection frequencies for different classes of sources. This guidance is utilized in establishing EPA/State agreements on State compliance assurance activities. As part of this strategy, EPA is revising very substantially its previous inspection frequency guidance to allow the States more flexibility to use their inspection resources to address their most significant air problems. The revised guidance also recognizes the increasing potential for use of continuous emission monitoring data to obviate the need for physical inspections.

Once a violation is detected, it is EPA's policy to allow the State to take the lead in resolving the violation, if it will do so in a timely and effective manner. Otherwise, EPA will take action, consistent with its other priorities. EPA can resolve the matter informally, utilize one of a limited number of administrative mechanisms, or initiate a judicial (civil or criminal) action. If the resolution includes the establishment of a compliance schedule, EPA must monitor the source's compliance efforts to assure that the schedule is adhered to. In recent years, the program has changed from a strongly Federal program to one reflecting a substantially increased State role with Federal technical support.

Efforts have been initiated relatively recently to promote compliance by industry through technical assistance and information exchange. While these efforts do not substitute for an effective enforcement program, or reduce the primary responsibility of sources to assure that they are in compliance, such efforts hold the potential for significant air quality benefits.

Priorities of the stationary source compliance program have evolved to reflect the new areas of regulatory activity and the previous successes of the program. Initial compliance has largely been obtained for sources of particulate matter and sulfur oxides, which have been comprehensively regulated since the mid-1970's. The program is now shifting to assuring continuous compliance

with these requirements and to addressing the problem of initial compliance by sources of emissions of volatile organic compounds, which are generally the subject of more recent regulation. In addition, vigilant prosecution of ongoing litigation and enforcement of existing Federal consent decrees continues to be a major program focus. Other important priorities include enforcement of the hazardous air pollutant standards, especially for vinyl chloride and asbestos demolition sources, and broader consideration of the use of Section 303, the Act's emergency episode authority.

Important policies and programs establishing the Agency's priorities are the "significant violator" program and the Post-1982 Enforcement Policy. The significant violator program identifies the Agency's highest non-emergency violating sources both for purposes of prioritization of Agency efforts and for reporting in the Agency's Management Accountability System. The Post-1982 Enforcement Policy applies to violating sources in nonattainment areas (other than extension areas) and establishes procedural and substantive requirements for EPA in resolving such violations, and in evaluating the adequacy of State efforts to resolve such violations.

An important element of any strategy is a means for evaluating the effectiveness of the program. A sound structure for such an evaluation already exists in the Agency's Management Accountability System and can be refined, if necessary, to accommodate any additional needs which may occur. Given the very important role of the States in the air program, an essential component of the evaluation system is the reporting of appropriate State data.

COMPLIANCE STRATEGY FOR STATIONARY SOURCES OF AIR POLLUTION

I. Introduction

This document is one of a series of media-specific strategies for obtaining and maintaining compliance by regulated sources with environmental requirements. This strategy deals with stationary sources subject to the requirements of the Clean Air Act and implementing Federal, State, and local laws and regulations. It is intended to provide an overview of the essential elements of the stationary source compliance program, a summary of past and present efforts, a definition of the short-term and long-term objectives of the program, recommended strategies for achieving those objectives, and a discussion of the relative roles of the Federal and State governments in implementing the various elements of the strategy. It is not intended to supersede the extensive body of detailed implementing guidance already in effect except to the extent specifically noted.

II. Framework of the Clean Air Act

The Clean Air Act is the nation's Federal law designed to protect the population from the detrimental health and welfare effects of airborne pollutants. Air pollution often crosses State boundary lines and pollutants originating in one State may adversely impact persons and property in other States. Congress recognized the interstate nature of air pollution and charged EPA with establishing uniform national ambient air quality standards and with the ultimate responsibility for assuring that citizens in every State are protected from the adverse effects of air pollution. However, Congress also recognized that each State contains a unique inventory of sources and, consequently, each State should have the primary responsibility for designing and operating a control program to achieve the pollutant reductions necessary to meet the national ambient standards. To address the national goal of healthful air for every citizen and the States' need to tailor control regulations to their individual needs, the Clean Air Act provides for States to develop control plans and regulations which adequately limit air pollution from new and existing sources. These

plans, including the implementing regulations, are known as State Implementation Plans (SIPs). If a State fails to adopt the necessary regulations, EPA is required to adopt regulations sufficient to protect ambient standards. EPA is authorized to enforce these regulations, whether EPA-adopted or State-adopted.

Controlling emissions from existing sources is sometimes difficult and expensive because control equipment must be retrofitted to sources that were initially designed without regard to emission control. Congress recognized that effective emission controls could be more easily integrated into the design of future new sources and, consequently, it empowered EPA to establish uniform, technology-based national emission standards for categories of new sources under Section 111 of the Act. These requirements are known as New Source Performance Standards (NSPS). These standards were intended not only to maximize the air quality benefit of the replacement of older facilities but also to reduce the likelihood that relaxed emission limits could be offered as an inducement to a new plant to locate in a particular State.

In addition, Congress was concerned with the serious health effects of hazardous air pollutants and provided for EPA promulgation of national standards for those emissions under Section 112 of the Act. These requirements are known as the National Emission Standards for Hazardous Air Pollutants (NESHAPs).

In summary, there are three basic programs regulating emissions from stationary sources:

1. SIP requirements for new and existing sources as necessary to attain and maintain the national ambient air quality standards, including new source permitting requirements;
2. Technology-based NSPS requirements for new sources; and
3. NESHAPs requirements for new and existing sources of hazardous air pollutants.

In addition to their lead role in the development and implementation of SIPs, Congress clearly intended that the States be primarily responsible for enforcing air pollution requirements. However, when a State or local agency is ineffective in expeditiously bringing a violating source into compliance, EPA must fulfill its obligations under the Act through initiation of a Federal enforcement action against the violating source.

III. Summary of Regulations Under the Clean Air Act

A. National Ambient Air Quality Standards

As of November 1, 1983, EPA had promulgated national ambient air quality standards (NAAQS) for seven pollutants, as follows:

<u>Pollutant</u>	<u>Year of Promulgation</u>
Particulate Matter	1971
Sulfur Oxides	1971 (primary), 1973 (secondary)
Nitrogen Oxides	1971
Carbon Monoxide	1971 (revision proposed 8/80)
Hydrocarbons	1971 (revoked 1/83)
Ozone	1971 (revised 2/79)
Lead	1978

The stationary source compliance program has traditionally addressed itself primarily to sources of particulate matter and sulfur oxides and, more recently, to volatile organic compounds which contribute to violations of the ozone NAAQS. Greater attention to lead can be anticipated in light of the recently heightened efforts to develop State Implementation Plans to attain and maintain the lead NAAQS. Focus on the stationary source aspects of the nitrogen oxides problem has been limited due to the relatively limited and localized scope of nonattainment with the nitrogen oxides NAAQS. In addition, control of new motor vehicles could be expected to reduce significantly nitrogen oxides levels. Carbon monoxide is almost totally a motor vehicle-related problem.

This strategy will be oriented towards enforcement of standards implementing the particulate matter, sulfur oxides, nitrogen oxides (where relevant), and ozone SIP's. Due to the relatively early stage of

SIP development implementing the lead NAAQS, it will not address lead specifically. It can be expected that much of the experience with other pollutants will also be relevant for lead. While it is possible that implementing the lead NAAQS will raise some new or unique compliance issues, it would be premature to attempt to define a strategy specific to lead until these issues are more highly defined.

B. New Source Performance Standards

As of November 1, 1983, EPA had promulgated new source performance standards for 44 source categories and proposed standards for 14 additional categories. Standards include not only emission limits but also test methods, recordkeeping, and reporting requirements. Source categories regulated (and year of promulgation) are as follows:

<u>Source Category</u>	<u>Year of Promulgation</u>
Fossil-Fuel-Fired Steam Generators	1971
Incinerators	1971
Portland Cement Plants	1971
Nitric Acid Plants	1971
Sulfuric Acid Plants	1971
Asphalt Concrete Plants	1974
Petroleum Refineries	1974
Petroleum Storage Vessels	1974
Secondary Lead Smelters	1974
Secondary Brass and Bronze Ingot Production Plants	1974
Iron and Steel Plants (BOPF)	1974
Sewage Treatment Plants	1974
Primary Aluminum Reduction Plants	1975
Wet Process Phosphoric Acid Plants	1975
Superphosphoric Acid Plants	1975
Diammonium Phosphate Plants	1975
Triple Superphosphate Plants	1975
Granular Triple Superphosphate Storage Facilities	1975
Electric Arc Furnaces	1975
Primary Copper Smelters	1976
Primary Zinc Smelters	1976
Primary Lead Smelters	1976
Coal Preparation Plants	1976

Ferroalloy Production Facilities	1976
Kraft Pulp Mills	1978
Grain Elevators	1978
Lime Manufacturing Plants	1978
Utility Steam Generators	1979
(After 9/18/78)	
Stationary Gas Turbines	1979
Petroleum Storage Vessels	1980
(After 5/18/78)	
Glass Manufacturing Plants	1980
Auto and Light-Duty Truck Surface Coating	1980
Ammonium Sulfate Manufacturing	1980
Lead Acid Battery Manufacturing	1982
Phosphate Rock Plants	1982
Metal Furniture Surface Coating	1982
Graphic Arts: Rotogravure Printing	1982
Surface Coating of Large Appliances	1982
Metal Coil Surface Coating	1982
Asphalt Roofing Manufacture	1982
Beverage Can Surface Coating	1983
Bulk Gasoline Terminals	1983
Equipment Leaks of VOC in the Synthetic Organic Chemical Manufacturing Industry	1983
Pressure Sensitive Tapes and Labels	1983

C. National Emission Standards for Hazardous Air Pollutants

As of November 1, 1983, EPA had promulgated NESHAPs standards for certain source categories of asbestos, beryllium, mercury, and vinyl chloride. In addition, EPA had proposed standards for certain source categories of benzene, arsenic, and radionuclides.

IV. Summary of Previous and Present Strategies

Given the relative maturity of the air compliance program, many different strategies have evolved to address different elements of the program. Rather than attempt to summarize all of these policies at this point, they will be addressed (to the extent worthwhile) in other sections (e.g., past inspections strategies will be discussed in the Compliance Monitoring section, Section VII). However, as background to an understanding of the present status of our compliance efforts, it would be worthwhile to discuss briefly the Agency's Major Source Enforcement Effort and to contrast it with the subsequent program to address significant violators.

The Major Source Enforcement Effort (MSEE) was initiated in the fall of 1977 and extended until the spring of 1981 (See Attachment 1). During that 3 1/2 year period, it was the driving force of both the air and water enforcement programs. The goal of the effort was to identify and take enforcement action against major sources that had never achieved initial compliance with applicable requirements of the Clean Air and Clean Water Acts. Within this group of sources were many of the largest contributors to the nation's air and water pollution problems.

The MSEE addressed approximately 1,670 air sources. As part of this program, EPA's Regional Offices initiated judicial referrals for approximately 400 air cases (not all of which were filed). Many other sources came into compliance as a result of EPA administrative action, State judicial or administrative action, or without any such action. Major characteristics of the MSEE were the predominant Federal role and the heavy reliance on litigation. At the conclusion of this effort, it was considered that the "initial compliance" problem for TSP and SO₂ sources was generally under control.

After the conclusion of the MSEE, the focus of the program broadened to include a re-emphasis on other elements of the program which were relatively ignored during the MSEE period (for example, new source permitting requirements). In addition, compliance dates for sources of volatile organic compounds, often first regulated in SIPs in 1977, began to pass creating an additional group of violators which needed to be addressed. To help prioritize Federal actions against violating sources, the concept of a "significant violator" was developed as part of the Agency's Management Accountability System in the fall of 1981.

A significant violator was defined in December 1981 (See Attachment 2) as a source meeting any of the following criteria:

- (1) a violator of a NESHAPs standard unless the magnitude and duration of the violation are minimal and the violation nonrecurring;
- (2) a violator of new source permitting requirements, and NSPS requirements, unless the magnitude and duration of the violation are minimal;

- (3) a violator of a State Implementation Plan if the source is of sufficient size (presumptively 250 tons/year potential emissions or 100 tons/year actual emissions of any pollutant) and is so located as to impact a nonattainment area for a pollutant for which the source is in violation.

A combined Federal-State effort to address significant violators was initiated in early 1982. This has been different from the MSEE in two important ways. First, as previously noted, while the MSEE was also a joint Federal-State effort, it was heavily dominated by EPA. In contrast, in implementing the significant violator program, EPA has placed considerably greater reliance on the States for enforcement against sources within their jurisdictions. To make assumption by States of this increased responsibility more feasible, EPA has greatly expanded its support to the States through direct technical assistance and State program capacity building initiatives (e.g., workshops and technical manuals). The second fundamental change was to reduce confrontation between EPA and industry through pursuing negotiation and informal or administrative resolutions, with litigation perceived only as a last resort. (The combination of these factors, combined with others such as Agency reorganizations and resource cuts, significantly reduced the Agency's enforcement profile, thus compounding charges that the Agency was not enforcing the law.)

In the first 18 months of the significant violator program, considerable progress has been made. An initial list of 482 sources was established and, since then, an additional 271 sources have been identified. In this same period, 411 sources (representing the vast majority of the original list) have been brought into compliance or placed on an acceptable compliance schedule. More detail on the significant violator program is contained in Section VIII of this strategy.

V. Summary of Present State of Compliance of the Regulated Community

A. Definitions

This section presents statistics which will show the compliance status of stationary sources subject to air pollution regulations. Before presenting these statistics, however, it is necessary to define the universe of regulated sources and some of the terms used in the statistical summary.

The regulated community includes sources subject to SIP, NSPS, and NESHAP requirements under Sections 110, 111, and 112 of the Clean Air Act. SIP requirements include PSD and new source review provisions for new sources. SIP sources are subdivided into Class A1, Class A2, and Class B sources. Class A1 SIP sources are sources with actual or potential controlled emissions, while operating at design capacity, equal to or greater than 100 tons per year of any regulated air pollutant. Class A2 SIP sources are sources not meeting the definition of a Class A1 source but with potential uncontrolled emissions, while operating at design capacity, equal to or greater than 100 tons per year of any regulated air pollutant. Class A1 and A2 sources are collectively referred to as Class A sources. Class B sources are all remaining SIP sources. (Compliance statistics are not maintained by EPA for Class B sources.)

A source is considered to be "in violation" for purposes of these statistics if it has been found to be operating in violation of an air pollution control requirement or if, after having been found to be in violation of an air pollution control requirement and ordered to meet a compliance schedule, it fails to meet that schedule. The term "in violation" as used here does not include sources which have been found to be in violation but which are meeting the requirements of an enforceable schedule to come into compliance. Such sources are categorized as "meeting a schedule". A source is considered "in compliance" if it is meeting all applicable air pollution control requirements.

B. Current Compliance Status

The following table summarizes the current compliance status of sources subject to SIP, NSPS, and NESHAPs standards as of the end of FY 1983:

<u>Category</u>	<u>Total</u>	<u>In Compliance (%)</u>	<u>Mtg. Sch. (%)</u>	<u>In Viol.(%)</u>	<u>Unknown</u>
Class A SIP	26,582	24,385 (91.7%)	502 (1.9%)	796 (3.0%)	899 (3.
Class A1 SIP	14,405	12,807 (88.9%)	400 (2.8%)	609 (4.2%)	589 (4.
NSPS	2,069	1,929 (93.2%)	17 (0.8%)	79 (3.8%)	44 (2.
AP	1,265	1,186 (93.8%)	10 (0.8%)	17 (1.3%)	52 (4.

C. Historical Compliance Data

For perspective, the earliest records show that in 1974, only 59% of a universe of 17,732 SIP sources were in compliance or meeting schedules. Progress, as reflected in decreased violations rates, was most dramatic in the early years of the program and less marked thereafter. Recent data are summarized below:

Class A1 SIP sources:

<u>FY</u>	<u>Total Sources</u>	<u>Violating Sources</u>	<u>%</u>
FY 1983	14,405	609	4.2%
FY 1982	14,371	549	3.8%
FY 1981	13,834	655	4.7%
FY 1980	13,316	653	4.9%
FY 1979	(Due to a change in the method of classification during FY 1979, data from FY 1979 and earlier years are not directly comparable.)		

NSPS Sources:

<u>FY</u>	<u>Total Sources</u>	<u>Violating Sources</u>	<u>%</u>
FY 1983	2,069	79	3.8%
FY 1982	1,718	50	2.9%
FY 1981	1,577	58	3.7%
FY 1980	1,314	59	4.5%
FY 1979	1,053	47	4.5%

NESHAP Sources:

<u>FY</u>	<u>Total Sources</u>	<u>Violating Sources</u>	<u>%</u>
FY 1983	1,265	17	1.3%
FY 1982	1,277	28	2.2%
FY 1981	1,169	27	2.3%
FY 1980	1,089	25	2.3%
FY 1979	1,088	19	1.7%

These data, taken together, tend to suggest that significant improvement in percentage violation levels should not be expected. At any given time, some percentage of sources will undoubtedly be in violation. Thus, we cannot expect continuous improvement in compliance levels. In fact, with the increase in newly-subject VOC sources and better data on continuous compliance, we can expect and have begun to see violation rates begin to increase.

D. Emission Levels

Because improvements in compliance levels do not necessarily correlate directly with improvements in air quality, a study was conducted in 1979 to determine if significant emission reductions were being achieved. The study showed the following:

<u>Year</u>	<u>Pollutant</u>	<u>Emissions (10³tons)</u>
1970	TSP	28,492
1979	TSP	13,549
1970	SO ₂	33,569
1979	SO ₂	32,345
1970	VOC	17,160
1979	VOC	19,145
1970	NO _x	13,090
1979	NO _x	14,825

The study showed a dramatic decrease in TSP emissions (52%), despite a 34% growth in potential uncontrolled emissions during the period between 1970 and 1979. For the other pollutants, absolute emission levels declined only slightly (4% for SO₂) or increased slightly (13% for NO_x and 12% for VOC). This was due to the significant source growth between 1970 and 1979 (22% in uncontrolled SO₂ emissions and 33% for VOC and NO_x) which tended to offset the effect of regulatory activity during the same period. Of course, had it not been for this regulatory activity (especially for SO₂), emission levels would have increased much more substantially. In addition, efforts to regulate stationary sources of NO_x have been limited and much of the regulatory activity for VOC sources has been subsequent to 1979.

E. Areas of Uncertainty

It is generally recognized that compliance statistics such as those previously cited likely overstate the degree of compliance with applicable requirements. Major areas of uncertainty which should be recognized in evaluating the data are as follows:

- (1) Data are generally based on periodic inspections (annual or biennial) which usually do not involve stack testing. These inspections tend to be infrequent and are often announced well in advance. As such, they are valuable primarily in determining whether a source has the capability of complying when its control equipment is optimized. It provides relatively little feedback on the day-to-day operation of the facility. In addition, inspections often focus heavily on visible emissions because compliance for gaseous pollutants such as SO₂ and NO_x is harder to evaluate in the absence of a stack test. Continuous emission monitoring technology, which could provide an indication of day-to-day operation, has historically been limited in its application by technological and cost considerations, even though many of those considerations are no longer valid. For these reasons, it is likely that many plants experience periodic excesses due to malfunctions or inattention to proper operation and maintenance procedures which never get noted as violations. (Greater reliance upon continuous emission monitoring is an integral element of the strategy to improve the ability of both sources and control agencies to address the continuous compliance problem.)
- (2) EPA has established recommended frequencies of inspection for different classes of sources, as discussed in detail in Section VII, Compliance Monitoring. To the extent that sources are not inspected at this frequency, the problem noted in paragraph (1) is compounded. Data derived as part of the Agency's Management Accountability System indicates that approximately 25% of major SIP sources are not being inspected at the recommended frequency.
- (3) Since the compliance data used by EPA are based primarily on State inspections, they are obviously dependent on the breadth and quality of the State inspections. While much effort has been devoted to reviewing and improving the quality of State inspections, sporadic problems may still exist. (The issue of EPA oversight of State compliance and enforcement programs is being addressed as part of a

joint effort with STAPPA (State and Territorial Air Pollution Program Administrators) and ALAPCO (Association of Local Air Pollution Control Officials), as discussed at some length in the section on Compliance Monitoring.)

- (4) There have been occasional problems with getting State data into CDS in a timely manner. This involves both nonreporting by States and failure to input the data by EPA. Efforts are also presently underway to eliminate these problems.
- (5) While inventories of subject sources are generally believed to be relatively complete, a recent concern has been identified relative to VOC sources. It now appears that there are significantly more subject VOC sources than CDS presently reflects, many of which may be in violation. A more detailed discussion of this issue is contained in Section IX B.

VI. Upcoming Priorities and Goals

- A. Priorities for the stationary source compliance program for the period through approximately the end of FY 1985 are as follows:
 - (1) resolution of violating sources in nonattainment areas in accordance with the Agency's Post-1982 Enforcement Policy (as discussed in Section VIII);
 - (2) refinement of the universe of VOC sources subject to SIP requirements and enforcement against at least Class A violating VOC sources, irrespective of location. Because many of the constituents of VOC are toxic in nature, vigorous enforcement of VOC requirements can yield substantial air quality benefits even in unclassified and attainment areas;
 - (3) enforcement of lead SIP's, once approved or promulgated by EPA;
 - (4) enforcement of NSPS and NESHAPs standards, with particular attention to NESHAPs standards for vinyl chloride and for asbestos relating to demolition activities. In addition, attention

should be directed to sources subject to presently proposed NESHAPs standards if these standards are promulgated (i.e., benzene, arsenic, and radio-nuclides);

- (5) enforcement of new source review and PSD requirements; and
- (6) broader use of Section 303 (emergency episode authority) in situations presenting an imminent and substantial threat to human health.

B. The short-term goals of the stationary source compliance program cannot be articulated in such simple terms as "increased compliance rates". The reasons for this are discussed at length in Section XII, which deals with evaluating the effectiveness of the program. Unfortunately, this complicates defining the goals in ways that lead to easy measurement of their accomplishment.

Specific short-term goals of the program are:

- (1) to complete successfully the initial implementation of the Post-1982 Enforcement Policy by bringing sources on the original list into compliance with emission limitations or acceptable schedules;
- (2) to assure that at least 95% of the significant violators in violation at the beginning of FY 1984 are in compliance, on an acceptable schedule, or subject to a Federal or State enforcement action by the end of the fiscal year;
- (3) to develop a complete inventory of Class A VOC sources and integrate the data into the Compliance Data System;
- (4) to achieve inspection rates for Class A1, NSPS, and NESHAPs sources which exceed 90% of that required under the Agency's inspection frequency guidance;
- (5) to complete development of the compliance assurance portion of the National Air Audit System and begin its implementation;

- (6) to develop and implement a strategy to assure compliance with the asbestos demolition standards, at least upon full repromulgation; and
- (7) to promote wider acceptance of the use of continuous emission monitoring technology within the industrial community and greater use of CEM data by regulatory agencies in their compliance programs.

Long-term goals of the stationary source compliance program are:

- (1) maintenance of high compliance rates for all aspects of the air program;
- (2) effective new source permitting programs;
- (3) improved systems for ascertaining the compliance status of sources on a day-to-day basis and dealing with excess emissions from poor operation and maintenance;
- (4) promotion of strategies to prevent violations of air pollution regulations, including expanded compliance promotion activities;
- (5) improved technical capabilities of both governmental and industrial personnel involved in the air pollution program; and
- (6) more effective and better defined roles and relationships between Federal, State, and local agencies.

VII. Compliance Monitoring

This section discusses the basic objectives of the compliance monitoring program, an overview of the compliance monitoring process, relative Federal and State roles and EPA's proposed program for auditing State compliance monitoring programs, guidance to States on frequency of inspections, inspection quality and complexity, and use of continuous emission monitoring technology in the air program.

A. Objectives, Overview, and EPA/State Roles

The function of the compliance monitoring program is to provide a data base for purposes of determining compliance by sources, identifying sources which may be in violation, and collecting evidence to support enforcement actions against violating sources. In addition, the presence of a visibly effective compliance monitoring program should serve as a powerful stimulus to assuring compliance by the regulated industries.

Compliance monitoring for purposes of routine determinations of compliance is largely a function of State and local agencies. EPA looks to the States to perform this function for SIP sources and for sources subject to delegated NSPS and NESHAPs standards. EPA retains the primary responsibility for these routine compliance determination inspections only for EPA-promulgated SIPs and for non-delegated NSPS and NESHAPs standards. This is a very small portion of the overall universe of sources. The Federal role is primarily to provide technical assistance, grant support, and oversight of the overall effectiveness of State efforts in addressing SIP and delegated NSPS and NESHAPs sources.

Data on compliance status as determined by the State are reported to EPA in accordance with agreed-upon procedures. Such reporting must be not less often than quarterly although, by agreement of the parties, it may be more frequent. It includes data on compliance status of sources inspected and on actions being taken to return violating sources to compliance. These data are then entered by the Regional Office into the Agency's automated Compliance Data System (CDS). Some States may directly enter the data into CDS, with EPA performing a quality assurance function on the data entry. Since CDS data form the basis for virtually all Agency reporting on compliance status, an effective CDS system and current data base are absolutely essential to the ability of the Agency to understand and articulate the status of the program and make planning and budgetary decisions accordingly.

If data show a source to be in violation, the Regional Office will ascertain what actions the State is taking to resolve the violation. If the State takes the lead on the case, the Regional Office will

track the progress of the State action. If the State is not or will not take prompt, effective action, EPA (consistent with its priorities) will assume responsibility. Once EPA assumes responsibility, it begins to document the violation for further enforcement purposes and proceeds as outlined in the section on Responding to Non-Compliance Problems, Section VIII. Discussion of monitoring activities once sources are found in violation and made subject to an EPA action will be reserved for that section.

This section will focus on the basic compliance monitoring program. As previously noted, this is largely a State responsibility. State programs are typically structured to address both sources of concern to EPA and those of purely local concern (e.g., odor problems not regulated under the Clean Air Act). EPA, in recognition of the fundamental role of the State, supports State compliance monitoring activities as part of its air grants to States under Section 105 of the Clean Air Act and through its training, workshops, and technical assistance activities.

The sources of primary concern to EPA have traditionally been Class A SIP sources, NSPS sources, and NESHAPs sources. This totals approximately 30,000 sources nationwide. One issue presently under consideration is whether EPA should focus on VOC sources even smaller than those meeting the Class A definition because of the significant contribution to ozone nonattainment made by large numbers of small VOC sources. Once an improved data base is established (see Section IX B), a different cut point might be chosen for VOC sources and a strategy might be evolved for some selective monitoring of sources even below that level.

The basic compliance monitoring technique used by the State is an inspection, an onsite visit to the source. Inspections can be of varying thoroughness. A typical inspection does not involve an actual stack test. Stack tests, when required, are generally conducted by the source with a government observer present. Typically, stack tests are required for an initial demonstration of compliance after installation of controls by an existing source or start-up of a new source. Thereafter, except for certain large sources such as utilities where routine stack testing

may be required, stack tests are typically required only if a violation of mass emission limits is suspected and a source is likely to contest the determination of violation.

A properly conducted inspection can involve a thorough analysis of source and control device operating characteristics and relevant operating parameters. Fuel samples for SO₂ evaluations and VOC samples for volatiles analysis may be taken. However, inspections too often focus primarily on visible emissions since gaseous pollutants such as SO₂ and NO_x can be more difficult to evaluate without stack testing.

A significant problem in the air program has been the limited availability of continuous emission monitoring technology. While technology for monitoring opacity has long been available and generally accepted, technology for continuous monitoring of gaseous emissions has lagged behind. However, major improvements in the reliability and accuracy of continuous emission monitoring equipment has occurred in recent years, and the Agency should make wider use of it in the future, both in establishing monitoring, reporting, and recordkeeping requirements in NSPS standards and in assuring continuous compliance by major SIP sources. At the moment, however, its use in the air program is limited. (See the discussion on continuous emission monitoring in Part F of this section.)

To assist the States in planning their inspection programs, EPA has issued guidance on the recommended frequency with which various classes of sources should be inspected. This recommended inspection frequency guidance is to form the basis of the EPA/State agreement on State compliance assurance activities negotiated as part of the grants award process. A substantial revision to the present inspection frequency guidance, intended to provide the States greater flexibility in addressing their most significant problems, is contained in Part C of this section.

Where States have not inspected a source within the defined period, Regional Offices have the responsibility of either getting the State to perform the inspection or performing the inspection itself. Regional Offices also have the responsibility of inspecting sources for which EPA has primacy (primarily non-delegated NSPS and NESHAPs sources).

It should be noted that the ability of the Agency to use a contractor as an Agency representative for purposes of conducting an inspection under Section 114 of the Clean Air Act has been the subject of considerable litigation. Courts of Appeal have split on the issue, with the Sixth and Tenth Circuits holding that the Agency cannot demand entry by contractors under Section 114 and the Ninth Circuit holding that it can. The issue is presently before the Supreme Court, which has granted certiorari.

Due to a combination of factors including the uncertain legal climate, antipathy to contractors by some States, and declining contract funds, EPA has been reducing the overall role of contractors in its program. They are likely to remain a necessary component for some time, however, and it is important that the right to use contractors be preserved.

One further point should be noted relative to inspections. They are often announced well in advance. The logic of this for a stack test is clear; stack tests can require significant site preparation. The logic for routine inspections, however, is far less clear. Reasons often cited are that it reduces the confrontational atmosphere and minimizes the likelihood that inspectors will travel at great time and expense to a facility which turns out not to be operating that day. However, by announcing the inspection in advance, sources are given the opportunity of optimizing their control equipment. While this admittedly has some air quality benefit, it may be more than outweighed by the emissions from sources not paying particularly close attention to their operation and maintenance because they know they are not in jeopardy of an inspection because they haven't been notified that one is to be conducted. As part of the exploration of options for dealing with the continuous compliance problem (see Section IX C), a re-examination of the issue of announced versus unannounced inspections has been initiated.

Before turning to EPA's program on auditing State compliance assurance programs, it might be beneficial to conclude this overview section by reiterating the respective roles of EPA's Headquarters and Regional Offices. Headquarters is responsible for:

- ° Developing policies, priorities, and budget for the compliance and enforcement program.
- ° Providing technical assistance, either directly or through workshops and manuals.
- ° Managing the operation of CDS.
- ° Tracking and evaluating progress in meeting national goals and priorities.
- ° Reporting to upper management on progress in meeting program goals and providing recommendations for improvement.

Regional Offices are responsible for:

- ° Establishing and maintaining effective coordinated working relationships with State and local agencies.
- ° Communicating national policy, priorities, and goals to State and local agencies.
- ° Utilizing the grants award process to assure that State and local programs and Federal expenditures are directed toward meeting national goals and priorities as well as local goals.
- ° Establishing programs of review and analysis to assure that State and local agencies are meeting commitments, goals, and priorities.
- ° Assuring the receipt and timely entry into CDS of compliance and enforcement action data.
- ° Operating a program to assure quality information and oversight.
- ° Operating a program for direct compliance efforts where EPA has primacy or the States are unwilling or unable to assume lead responsibility.

B. EPA Audit Program

EPA's overview of State compliance monitoring programs traditionally evolved in the form of an inspection program where State-reported compliance information was independently verified by EPA (or its contractor). In the past, the Agency would inspect from five to ten percent of the sources reported by the States as being in compliance to verify their compliance status. While this program generally accomplished its objectives, it was very

resource-intensive, occasionally caused disagreements with the States over use of contractor personnel in this program, and often provided insufficient feedback to the States on their performance. For these reasons, EPA decided in mid-1982 to move away from this approach.

Since mid-1982, EPA has been working with STAPPA and ALAPCO, the associations representing State and local air pollution control officials, in developing a National Air Audit System. One element of this audit system is the compliance assurance activities of a State program. The objectives of this element are:

- ° To provide a basis for EPA to formulate a judgment as to the overall quality and effectiveness of the State and local agencies' compliance and enforcement procedures and activities.
- ° To provide a basis for EPA to make timely decisions as to the necessity and appropriateness of direct Federal enforcement against individual sources.
- ° To provide a basis for EPA to know immediately or to be able to ascertain quickly the following:
 - (a) general compliance level for all sources or classes of sources, in the State as a whole or in designated areas;
 - (b) the compliance status of any specific source; and
 - (c) the compliance activity directed towards resolving instances of noncompliance.
- ° To promote effective working relationships between EPA, the State, and local agencies to assure consistent application of regulations and policies.
- ° To provide a basis for determining whether additional support to the State program, such as through workshops or other technical assistance activities, would be beneficial.

A document detailing the nature of the National Air Audit System should be agreed upon by early in the fall of 1983. Elements of the compliance assurance portion of the audit program are expected to include the following:

- ° EPA will ask State and local agencies to review annually the data summaries that EPA has in CDS to confirm that the data agree with their information about the sources.
- ° EPA will spot check State source files annually to confirm that the data in State files agree with the data that EPA has on the source.
- ° EPA will determine the adequacy of the documentation found in State files to support the reported compliance status of the source.
- ° EPA will determine through examining State files the adherence of the State to proper procedures for determining the compliance of sources.

In addition, EPA will select through a neutral inspection scheme from 2-5% of the sources of the State inventory of concern to EPA. Each Regional Office will determine the appropriate level for each of its States after consultations with the State. EPA will notify the State at least 30 days before it inspects a source so that back-to-back EPA and State inspections can be avoided and so that States may participate in the inspection. In this manner, the oversight inspection can be used to improve EPA's knowledge of the sources it tracks, improve the general abilities and understanding of the State inspector, and present a stronger Federal presence to the regulated community.

Note that the foregoing discussion reflects deliberations to date by the EPA/STAPPA/ALAPCO workgroup on the compliance assurance aspects of the National Air Audit System. That is the appropriate vehicle for defining this program and this strategy is not intended in any way to detract from or supersede that effort.

C. Inspection Frequency -- Revised Guidance

A fundamental element of the Stationary Source Air Compliance Program is the periodic visit by governmental air compliance personnel to significant regulated sources of air pollution. Historically, technical and cost considerations have limited the use of continuous emission monitoring technology in

air pollution regulation, making actual site inspections the primary means by which the ability of sources to comply with applicable requirements is determined. The primary responsibility for conducting these inspections is at the State and local level, with EPA grant and technical support.

Initially, EPA air inspection guidance to the States provided for, at a minimum, an annual inspection of any source having an uncontrolled emission rate equal to or exceeding 100 tons per year of any regulated pollutant. However, in light of the Alabama Power decision (636 F.2d 323, D.C. Cir., December 14, 1979) which altered the definition of a "major source" under the Clean Air Act, revised inspection frequency guidance was issued in March 1980. That guidance specified at least annual inspections of NSPS, NESHAPs, and Class A1 SIP sources and at least biennial inspections of Class A2 SIP sources.

However, given the limited availability of resources at the Federal and State level and the increasing complexity of the air pollution program, it appears that the current guidance may not be sufficiently flexible to permit States to address properly their most significant problems. Therefore, the Agency is establishing revised inspection frequency guidance as outlined below. Please note that the revised guidance does not address EPA oversight activities, which are being addressed separately. In addition, this guidance establishes only the minimum acceptable program. States are strongly encouraged to go beyond these minimums to the extent resources allow.

REVISED GUIDANCE

The inspection is the primary compliance assurance method presently available in the air program for validating source performance. Therefore, EPA believes it is imperative that an inspection program be implemented in all States. The following guidance on the expected frequency of inspections is intended to balance the need for a nationally-uniform data base to enable an evaluation of the effectiveness of the program with the needs of State and local agencies to make optimal use of their limited resources to address the varied and unique air quality problems faced by each State and locality.

The frequency of such an inspection shall be determined by which requirements are applicable (SIP, NSPS, NESHAPs) and, for SIP sources, by whether the source is a Class A1 or Class A2 source. It is imperative that all sources be classified by SIP class (if applicable) and applicable air program (SIP, NSPS, NESHAPs) and that these data be duly recorded into EPA's Compliance Data System (CDS).

DEFINITION OF AN INSPECTION AND USE OF CONTINUOUS EMISSION MONITORING (CEM) DATA AS AN ALTERNATIVE

For the purpose of this guidance, a State inspection shall mean an onsite visit to an operating source to assess compliance with applicable State and Federal air pollution control requirements.

An alternative for satisfying inspection frequency guidance by the State for any SIP or NSPS source is the use of continuous emission monitoring Excess Emission Reporting (EER) on a quarterly basis in lieu of periodic inspection requirements. An EER is a suitable alternative for a source utilizing continuous emission monitoring under the following conditions:

- ° The data reported in the EER to assess compliance are at least comparable to the data which would have been obtained during an onsite inspection to assess compliance.
- ° As part of the State's CEM quality assurance/quality control program, the monitor must be quantitatively audited at least every three years.
- ° EERs must be input into the CEM subset of CDS.
- ° The intended use of the EER alternative to onsite inspections must be agreed upon between the State and the EPA Regional Office.
- ° The Stationary Source Compliance Division must receive the names and CDS numbers of all Class A1 SIP and NSPS sources covered by the EER alternative to adjust properly the data base for subsequent analysis and reporting.

- The State must conduct an onsite inspection of all sources being tracked under the EER alternative at least once every three years. (This could be conducted in conjunction with the quantitative audit previously described.)

It is EPA's belief that continuous emission monitoring should eventually be fully integrated with inspections and other compliance determination methods into a total compliance monitoring system. The use of CEM data under the circumstances described in this section is a step in that direction. As more experience is obtained, it is envisioned that this guidance will be revised accordingly.

For sources for which compliance is based solely on the characteristics of the fuel burned (typically percentage of sulfur in the fuel), an inspection of the fuel supplier's records and a sampling of the supplier's product can be substituted for an onsite inspection of the source.

CLASS A1 SIP SOURCES

All operating Class A1 SIP sources regulated under the Clean Air Act shall be inspected annually. Annually is construed to mean at least one onsite visit is made to each such source between October and September, corresponding to the Federal fiscal year.

An exception to the annual inspection requirement is permitted if the EPA Regional Office and State agree that a source is constrained by an operating permit or is seasonal in nature such that it would be inappropriate to apply an annual inspection requirement to this source. All such excepted sources shall be inspected at least once every five years. Categories such as grain elevators and alfalfa dehydrators are examples of possible exceptions. Exceptions should be communicated by the Regional Office to EPA's Stationary Source Compliance Division (SSCD) at the start of the inspection year so that the data base can be properly adjusted for subsequent analysis and reporting. Regional Offices are encouraged to discuss with SSCD any novel issues which may arise in their discussions with their States.

CLASS A2 SIP SOURCES

Except as noted below, operating Class A2 SIP sources regulated under the Clean Air Act shall be inspected biennially. However, a State may propose a modified inspection scheme to its EPA Regional Office which represents at least the same level of resource commitment but which the State believes is more responsive to the needs of its air quality program. This can consist of any combination of additional Class A1 SIP inspections, Class A2 SIP inspections, and inspections of other sources regulated under the Clean Air Act. This could include Class B SIP sources in those areas where they are particularly significant. EPA Regional Offices and their States are free to establish whatever approach is best suited to their situation as long as the following conditions are met:

- ° SSCD must receive informational copies of such agreements at the start of each fiscal year.
- ° A method of monitoring the agreement must be in place and data reporting requirements clearly established.
- ° The State must demonstrate that the modified approach is based on at least the same resource expenditure as would be required to inspect all Class A2 SIP sources on a biennial basis.
- ° All operating Class A2 SIP sources must be inspected at least once every five years.

NSPS SOURCES

Any operating NSPS-subject source which is also a Class A1 SIP source shall be inspected at least once every Federal fiscal year. All other NSPS sources shall be treated as a Class A2 SIP source.

NESHAPs SOURCES

All operating nontransitory NESHAPs-subject sources shall be inspected at least once every Federal fiscal year.

D. Inspection Frequency -- Present Experience

To identify whether sources were being inspected by States in accordance with EPA's recommended inspection frequency guidance, a new commitment was added to the Agency's Management Accountability System for FY 1983. This commitment evaluated the degree of compliance with the inspection frequency guidance for SIP sources by the States, aggregated as national and Regional percentages.

The first quarter's data (i.e., that reported on December 31, 1982) showed disappointingly low figures, ranging between a high of 90% and a low of 13% for Class A1 sources, with a national average of 48%. Investigation of the reasons for these numbers lead to the conclusion that it was partly a data entry problem and partly a problem with inspections not being performed as required. By working to resolve the data problems, the national average had increased by the end of FY 1983 to 76%, with the range being from 44% to 100%. Regional Offices have been directed to work with those States where problems may still exist to ensure compliance with the guidance using, if necessary, the grant mechanism as a vehicle for accomplishing this. Initial feedback on the response to this issue from Regional Offices and States has been encouraging and tracking of this element will continue (in slightly modified form) in the FY 1984 Management Accountability System.

E. Inspection Quality and Complexity

Previous discussion has focused primarily on the frequency of inspection of various sources. There are two other elements which must be considered in conjunction with frequency, the quality of the inspection and the degree of complexity of the inspection.

The need for quality in conducting inspections is self-evident. EPA has been focusing on the quality issue largely through its efforts to upgrade the technical capacity of State and Regional inspector staffs. A greatly expanded workshop program and issuance of technical manuals are the two primary ways in which this is accomplished. The joint inspections conducted as part of the audit program proposed in Part B of this section should serve as

another effective vehicle for training. The audit itself will be useful in identifying areas of weakness which need to be remedied and thus provide for more focused EPA technical assistance efforts.

A second element is the tailoring of the inspection to reflect the degree of complexity of the source, its control equipment, and its compliance history. This is an important element of targeting inspection resources.

It is recognized that many State and local agencies already consider these factors both in setting inspection frequencies and in determining the nature of the inspection to be conducted. However, to assess the benefits of this approach in a more structured way, EPA conducted a pilot study in cooperation with the Commonwealth of Virginia in one region of the State.

An important objective of the Virginia study was to evaluate and field test inspection procedures that would utilize more effectively their current manpower to ensure continuing compliance of sources having the greatest impact on air quality. Sources (Class A only) were identified for future inspections based on a targeting plan using the following source information, which was obtained by file and permit reviews and past field inspection experience:

1. Control equipment type
2. Type of source and emissions characteristics
3. Source size
4. Geographic location
5. Frequency of malfunction

Based on these source-specific data, the frequency and level of inspection to be conducted at each source was determined. As a result, there were 5 recommended levels of inspection.

Level 0

- ° Conducted at uncontrolled sources basically for data collection and baselining operational performance

- ° Used for petroleum storage facilities, paint spray booths, drying ovens, uncontrolled degreasing facilities

Level 1

- ° Limited to the evaluation of visible emissions from process vents, fuel combustion sources, incinerators, and fugitive emission sources
- ° Used periodically in conjunction with more complex inspection levels to ensure continuing compliance with visible emissions requirements
- ° Used for gas-fired and oil-fired boilers, tenter frames, incinerators, and fugitive emission sources such as conveyor transfer points and truck loadout facilities

Level 2

- ° Monitored source-maintained records on control device and process operating conditions in addition to visible emission observations
- ° Reviewed such process items as feed rates, temperatures, raw material compositions, and process rates, and such control equipment performance parameters as water flow rates, water pressure, static pressure drop, and ESP power levels
- ° Used records to determine any significant change since the last inspection (where compliance was demonstrated) or any process operations outside normal or permitted conditions

Level 3

- ° Designed to provide a detailed engineering analysis of source compliance by actually measuring specific operating parameters
- ° Reduced and used control equipment operating parameters such as pressure drop, flue gas conditions, oxygen level, water flow rates, and gas stream temperature to calculate flue gas volume, superficial velocity, specific collection area, inlet velocity, etc.

- ° Used results of engineering analysis to determine if the source is:
 - a. operating within accepted design conditions for the specific control device
 - b. experiencing O&M problems that result in less than continuing compliance

Level 4

- ° Conducted along with a compliance stack test (by approved reference methods)
- ° Monitored all process and control device operating parameters during a stack test for use during future Level 3 inspections
- ° Permitted the establishment of baseline conditions at controlled sources

The purpose of the increasing level of inspection is to concentrate the resources on those sources that have the greatest potential to exceed the emission limits. Initial results of the Level 3 inspection may indicate that specific sources are not experiencing deficiencies in performance and therefore do not warrant a higher level of inspection. In these cases, the frequency or level of inspection may be adjusted downward consistent with the results of the Level 3 inspection.

Prior to this study, the Virginia inspectors were generally conducting only Level 1-type inspections using visible emissions as the sole indicator of compliance. As a result, it was difficult to detect potential violations of the mass emission limitations or to detect potential O&M problems that could affect the overall performance of the control equipment.

The targeting plan in the Virginia study initially called for a Level 3 inspection to be conducted at any source with uncontrolled emissions greater than 25 tons/year and a Level 2 inspection at any source with uncontrolled emissions greater than 5 tons/year at normal operation, unless the source emitted lead or hazardous air pollutants. As it evolved, it became evident that the number of inspections had to be

adjusted downward due to resource constraints and various special circumstances associated with individual inspectors. Nevertheless, during the application of the inspection levels approach, a number of heretofore undetected violations were discovered, as discussed in Section IX C of this strategy. By using a number of parameters extending beyond visible emissions (Level 1) and performing more detailed inspections of control devices, a better assessment of noncompliance could be made, with the cause of noncompliance often specifically identified by the inspector.

A final report of the initial phase of this pilot effort will soon be available. The concept is being further evaluated to assess its longer-term effectiveness. If it continues to prove effective, it will be tested statewide in Virginia. If it proves effective on a statewide basis, consideration will be given to providing support to other States which would like EPA assistance in initiating a comparable program.

F. Use of Continuous Emission Monitoring Data

This section addresses EPA's use of Continuous Emission Monitoring (CEM) data in enforcement of NSPS and SIP emission and operating and maintenance (O&M) provisions and in other general EPA activities.

Instances in which instrumental CEMs (conforming with 40 CFR 60 Appendix B) or manual measurements (Reference Method 6B) have been promulgated or approved by the Agency as official methods to determine source compliance with the applicable emission limitations are presently quite limited. CEMs have been specifically prescribed as the method to establish emission violations for one or more pollutants in the following instances:

- ° NSPS electric utility steam generating units, regulated by 40 CFR Part 60 Subpart Da;
- ° NSPS primary nonferrous smelters, regulated by 40 CFR Part 60 Subparts P, Q, and R;
- ° NSPS stationary gas turbines, regulated by 40 CFR Part 60 Subpart GG;
- ° various sources regulated by permits, orders, or consent decrees in which CEM has been specifically designated as the compliance test method;

various types of sources which are regulated by SIPs (e.g., Nevada SIP, 40 CFR §52.1475(d)) where the State has specified CEM as the compliance test method.

Legal factors currently affecting the ability of the Agency to use CEM data for direct enforcement are discussed at some length in the memorandum of August 12, 1982 from Kathleen Bennett to the Air Division Directors (Attachment 3).

However, CEMs can provide the Agency with useful data for circumstances other than those delineated above. Sources subject to CEM requirements are generally required to submit periodic reports. NSPS regulations, for example, require quarterly submission of Excess Emission Reports (EER's). These reports document, for the benefit of both the control agency and the source, the source's performance with respect to proper operation and maintenance and sustained emissions reduction. The EER contains information on excursions above the relevant standard (excess emissions), causal factors, and corrective/preventive actions.

Acquisition, evaluation and use of CEM data is an important component of a feedback system which can be of substantial benefit to both sources and agencies. Specifically, EER data can be used:

For Sources

- to help ensure upper management attention through the formal requirement for source submittal of a summary of excursions. This increases the likelihood of timely attention and reduces the risk of sanctions; and
- as a tool in preventive maintenance/risk management/cost control programs, to flag deteriorating process or control equipment performance. In cases such as fuel burning, CEM data can be used to optimize continually the combustion process and control system performance, thus saving money and preventing pollution at the same time.

For the Control Agency

- as a screening tool, to identify sources experiencing frequent or continual excursions. Such sources can be subjected to additional attention in the form of phone calls, inspections, etc., rather than allocating scarce inspection resources largely at random;
- in addition to identifying problem sources, to help pinpoint specific source components for special attention during an inspection;
- to document the severity (e.g., duration, magnitude, and frequency) of a source's excess emissions. For example, EER data can provide supporting evidence of the long-term nature of violations, negating source claims of isolated problems;
- to document that a compliance test was performed during "non-representative" operating conditions;
- as support for issuing an NOV;
- to establish a data base in the development of Agency policies and strategies (e.g., acid rain strategies);
- as the basis for assessing "good air pollution control practices" (e.g., FGD performance);
- as an alternative to agency inspections of sources as delineated in the Agency's Inspection Frequency Guidance in Part C of this section; and
- to monitor the emissions and performance of a source subject to specific permit, consent decree, or administrative order requirements.

For Both Control Agencies and Sources

- to provide a quantitative basis for agency/industry dialogue in identifying and resolving emission reduction problems; and
- to provide baseline data for development of profiles and norms of long-term source performance.

Many of the concerns which led to industry's initial reluctance to use CEMs (or reluctance by EPA to require use of CEMs), or which may have resulted from bad experiences with CEMs, are no longer valid. Industry and agency familiarity with the operation of continuous emission monitoring equipment and standardization of quality assurance/quality control and system audits have improved the acceptance of the technology substantially in recent years. Accompanying this acceptance of CEM technology has been the development of simpler and less expensive technologies, such as Method 6B bubblers. The traditional limiting factors of reliability and cost considerations have been to some extent replaced with different limiting factors, misinformation and inertia. The Agency needs to recognize and overcome these limitations and expand greatly the role of CEM data in the air program.

EPA has been working with State and local agencies and the utility industry to improve performance of CEMs and the data base of operational information. Some of these efforts are outlined in Section X concerning Compliance Promotion. This will be of particular importance as sources subject to Subpart Da, which utilizes CEM as a compliance method, come on line. In time, with the support of the regulatory agencies and industry, the misinformation and inertia problems may start to be resolved.

A very important effort presently under way is a pilot project which EPA is sponsoring in conjunction with the States of Iowa and Missouri. The pilot focuses on demonstrating the potential effectiveness of a well-run program to utilize CEM data and fully integrate it into the compliance determination process. While the work is still in its early stages, the reaction of both the States and sources involved has been very encouraging. Hopefully this study, when completed in approximately another year, will be useful in demonstrating to other States and industry that similar efforts can be rewarded with a better understanding of and ability to control emissions from the day-to-day operation of its sources.

In any event, EPA can hardly expect others to take a fresh look at the use of CEMs unless it is willing to do so itself. The Agency should increase its reliance upon CEM data in its compliance and surveillance programs and consider, wherever possible, some form of continuous monitoring requirement in

its NSPS and NESHAPs standards as they are promulgated or revised. It would be most effective if CEM were specified as the compliance method or as an alternate compliance method.

This would require a careful consideration of what data are really required, how frequently they are needed, what they will be utilized for, and the realistic capability and willingness of the receiving agency to utilize the data. (There is no point requiring more data which will sit unread in a corner.) This leads to the further need to identify what additional information is needed to allow effective use of these data, such as improved information on what reasonably can be expected of control equipment in terms of performance and reliability.

In summary, receipt and use of CEM data can assist agencies and industry to discharge more effectively their compliance monitoring responsibilities. In particular, it allows agencies to become more sophisticated in allocating agency resources and attention. Visible and timely use of such data also sends a signal to sources that the agency is serious about continuous compliance.

Many of the uses of CEM data previously identified can be effectuated without rulemaking through the Agency's authority in Section 114. It is recommended that Regional Offices increase their use of available CEM data to support the compliance monitoring and enforcement programs in the ways previously discussed. In addition, Regional Offices should begin to identify those sources presently without CEMs but for which the use of CEMs could be fruitful. This could include such sources as long-term violators, and large SO₂ emitters, particularly in nonattainment areas. For these sources, the Agency should begin requiring CEM installation, quality assurance testing, recordkeeping, and periodic reporting of relevant CEM data to EPA. In addition, the Agency should broaden its use of CEMs in its permits, consent decrees, and administrative orders.

Some Regions and States are further along than others in terms of willingness and ability to use CEM data. Specific efforts will be initiated as part of this strategy to work with the lead Regions to formalize and enhance their procedures on EER review and use for subsequent inclusion in Agency-wide guidance.

VIII. Responding to Noncompliance Problems

A. Objectives

The objectives of responding to noncompliance problems are to ensure that the problem is corrected quickly, to deter similar problems from arising, to see that the law is applied equitably, and to punish misconduct by source owners and operators.

B. Priority Target Areas

The current system of priorities for responding to noncompliance problems is primarily delineated by two memoranda. The first is the December 29, 1981 memorandum from Kathleen Bennett to the Regional Administrators, entitled "EPA Accountability System-OANR Policy Guidance". In an appendix to that memorandum (a copy of which is included in Attachment 2), the term "significant violator" is defined, and the statement is made that these significant violators should be addressed. (This policy was elaborated upon in a memorandum of June 24, 1982, to the Regional Offices entitled "Significant Violators" (Attachment 4).) Roughly speaking, the sources to be given a high priority as "significant violators" are those violating hazardous air pollutant standards (NESHAPS), major source State Implementation Plan (SIP) violators affecting nonattainment areas, and violators of new source requirements (NSPS and requirements of Parts C and D of the Act.)

The purpose of establishing the significant violator program was to define the Agency's highest priority sources for enforcement action, other than emergency actions. In light of the special importance attached to these sources, Regional Offices are required to report on a quarterly basis on the status of efforts made by themselves and their States on resolution of these violators.

The list of significant violators is obviously dynamic, with sources being added and deleted as violations are discovered and resolved. The initial list established in March 1982 contained 482 sources.

By the December 31, 1982 report, the number of significant violators had been reduced to 303. Starting with the March 31, 1983 report, the number began to increase again. This reflected the fact that many VOC sources were subject to December 31, 1982 compliance dates. As that date passed and as violations are confirmed, those violators meeting the significant violator criteria are added. As EPA continues to improve its information on the identity and compliance status of VOC sources, it is likely that the list will continue to grow before enforcement efforts begin to turn this around.

It is generally accepted within the Agency that the significant violator program forms a sound base for the program. It is expected that this concept will continue essentially as it is for at least the next two years.

The second major priority-setting memorandum is the Agency's Post-1982 Enforcement Policy, dated September 20, 1982 (Attachment 5). This policy provides more detail for addressing SIP violators in primary nonattainment areas after December 31, 1982. (The policy does not apply when the attainment deadline is after 1982, such as in areas with Section 172(a)(2) extensions.)

In particular, the policy states that EPA or States should seek shutdown of sources subject to the policy unless:

- (1) The public interest in continued operation of the source outweighs the environmental cost of the additional period of noncompliance and;
- (2) The source has sufficient funds to comply expeditiously.

If the Agency decides not to seek shutdown, it may enter stipulations and not oppose a request to the court to exercise its equitable power to enter an order establishing a compliance schedule. Such an order should contain:

- (1) an expeditious schedule with increments of progress to comply with the SIP, or RACT if no Part D plan is in force where one is required;
- (2) interim emission limitations and controls to the extent practicable;
- (3) monitoring and reporting requirements;
- (4) stipulated penalties, at least for violations of the compliance schedule and interim controls;
- (5) provisions preventing increases of emissions;
- (6) payment of a significant cash penalty, with total civil penalties reflecting the criteria of the Civil Penalty Policy;
- (7) an express reservation of the right to seek injunctive relief, including shutdown, if the source does not comply with the order; and
- (8) consistency with the Agency's Limited Life Facilities Policy with respect to sources being shut down rather than controlled.

Further guidance on the policy was issued on January 12, 1983, in a memorandum from Kathleen Bennett and Robert Perry to the Regional Administrators and Regional Counsels (Attachment 6). This guidance clarified the policy in a number of ways, most importantly in providing further detail on criteria to be applied in review of State actions for possible overfiling. This supplemental guidance also directed the Regional Offices to issue Notices of Violation to all sources to which the policy applies, including State-lead cases, so that EPA will be in a position to act quickly if State action ultimately proves inadequate.

Since the policy was established, EPA has been working closely with States to assure its successful implementation. A high proportion of the sources which were determined to be subject to the policy have either come into compliance, been put on a

compliance schedule, or have an enforcement action pending against them. Of course, as with the significant violator program, new violators are continually being identified so that the overall number of identified violators is not necessarily decreasing. In fact, it is likely to be increasing as VOC compliance inventories and data become more complete.

Since January 1983, EPA Headquarters has been tracking on a source-specific basis initial implementation of the Post-1982 Enforcement Policy. To do this in a feasible manner, it is using the list of violators identified as of the time the policy first took effect, i.e., January 1, 1983. It has not attempted to keep a running list (adding each new violator as it is discovered). It is important to emphasize, however, that such data must be available at the State level and reported to EPA's Regional Offices in accordance with established reporting requirements. Sources subject to the policy must be addressed, whether by EPA or the State, consistent with the policy irrespective of whether the source happens to be on the list Headquarters is tracking.

Headquarters tracking of Post-1982 sources as a separate exercise is considered worthwhile only for about the first year of the implementation of the policy. Its purpose is to assure that the policy is understood and integrated into consideration of appropriate enforcement responses. For the long-term, it is preferable to eliminate separate Headquarters tracking and to rely on the significant violator program for priority-setting and tracking since, while it includes the most significant Post-1982 policy sources, it includes other important categories of sources (e.g., NSPS and NESHAPs) as well.

Because of the importance of the significant violator and Post-1982 Enforcement Policy concepts in the enforcement program and because they are different yet partially overlapping, it would be worthwhile to summarize the main points of each for comparison purposes.

Significant Violator List

- ° A priority setting mechanism to assist the Regions and States in targeting their resources to achieve the greatest environmental benefit;

- ° A defined universe used for tracking Regional program performance in the Management Accountability System;
- ° Sources are not subject to any particular substantive Agency policies purely based on their status as significant violators. Sources on the list may be subject to any of a number of substantive Agency policies;
- ° Includes NSPS, NESHAPs and certain PSD violators;
- ° Includes SIP sources in secondary nonattainment areas as well as primary nonattainment areas; and
- ° Generally includes only Class A1 SIP violators (in nonattainment areas).

Post-1982 Enforcement Policy List

- ° The sources on the Post-1982 Enforcement Policy list are those sources fitting the defined criteria established in the September 20, 1982 memo from Anne Gorsuch to the Regional Administrators and subject to the particular substantive and procedural elements of that policy.
- ° Affects only SIP sources in primary nonattainment areas (other than extension areas).
- ° Includes Class A2 sources as well as Class A1 sources.

Thus, some degree of overlap does exist between sources on the significant violator list used for MAS tracking and the list of sources subject to the requirements of the Agency's Post-1982 Enforcement Policy. However, they are distinct universes that have been established to serve different purposes.

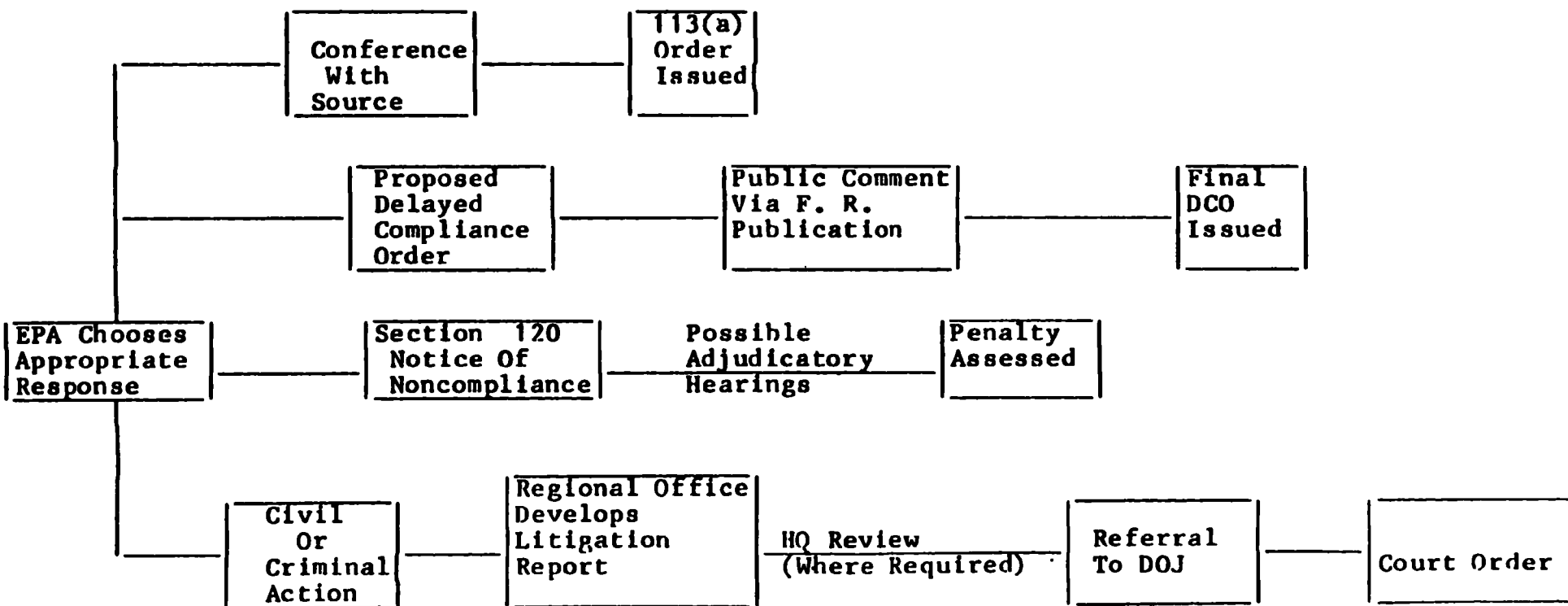
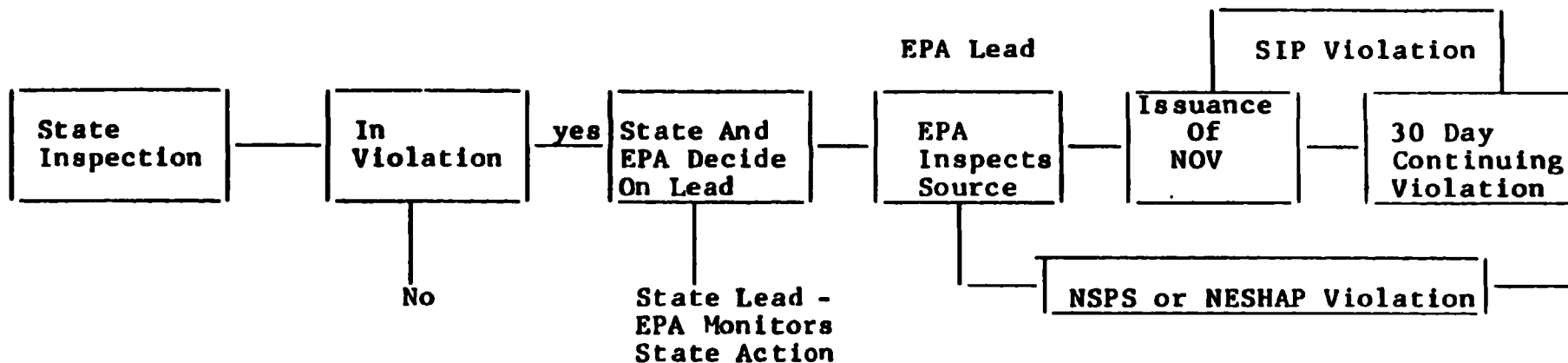
Priority will also be assigned to resolution of at least certain classes of VOC violations, irrespective of whether they meet the present significant violator definition. This includes sources smaller than the Class A1 definition in nonattainment areas to the extent that resources permit.

Certain VOC sources are of concern not only because of their contribution to ozone levels, but also because the constituents of their VOC emissions are toxic in nature. Previous efforts have focused on VOC emissions only to the extent that they impact attainment of ozone ambient standards. In FY 1985, efforts will be substantially increased to enforce VOC control requirements even in areas which are projected to be attainment or unclassified relative to the ozone NAAQS, where the enforcement of VOC control requirements can yield significant benefits through reduction in air toxics. The special problems associated with VOC sources will be discussed at greater length in Section IX B.

In addition to the priorities set by the documents cited above, several other aspects are important to note. The highest priority should be given to any emergency episode which may arise as defined in Section 303 of the Act. Expanded guidance for response under Section 303 was sent to Regional Offices on September 15, 1983 and is included as Attachment 7. The essential point to note about this guidance is that it urges a broader consideration of the use of Section 303 authority. In the 1970's, emergency episodes (and thus use of Section 303) were viewed almost entirely in the context of high levels of criteria pollutants under adverse meteorological conditions. This occurs only infrequently these days, at least for pollutants associated primarily with stationary sources. However, the serious threats presented to public health by various air toxic substances have become much more visible. The purpose of the guidance is to foster a broader awareness of the possible use of Section 303 as a mechanism to address, in proper circumstances, the dangers presented by such emissions.

Similarly, while already covered as "significant violators", special note should be made of enforcement against violations of hazardous air pollutant standards. This will consist primarily of continued enforcement of vinyl chloride standards, enforcement of asbestos demolition standards, and initial implementation (enforcement or waiver issuance) of newly-promulgated NESHAPs standards. Enforcement of NESHAPs standards is discussed at some length in Section IX A.

Stationary ce
Compliance Process



Finally, priority should be given to addressing violations of Section 114, which sets out the Agency's information-gathering authority, because that authority is so basic to EPA's ability to set and enforce the substantive requirements called for by the Act. Similar high priority should be assigned by EPA Regional Offices to violators of EPA orders or Federal judicial decrees.

Note that these priorities reflect considerations at the national level. Obviously, conditions at the State and local level vary widely. The listing of these national priorities should in no way be interpreted as condoning a failure to address other important air quality problems, such as violating sources in attainment areas, to the extent consistent with other priorities and available resources.

C. Informal Responses

When EPA or a State first learns of a noncompliance problem, it may be possible to remedy the problem by informal discussions with the source which lead to a quick (generally within 30 days), complete resolution. If this is not possible, however, a more formal response should be considered. In addition, if the violation appears to be part of a continual pattern of intermittent violation, it may be preferable to document the violation with a Notice of Violation even if quickly remedied. This may be taken more seriously by the source, help focus attention on the source in inspection targeting, and lay the foundation for a more aggressive response to any subsequent violations.

D. Formal Responses

Diagram #1 provides a simplified flow diagram of the formal enforcement process. Normally, the State or local agency will take the lead in addressing problems of noncompliance. If a State takes the lead, EPA should understand what action the State is contemplating and the timetable for that action so it can make a reasoned judgment on deferral to the State. This understanding should be documented in the form of a State action plan. This could be

prepared either by the State or by EPA with a State review for accuracy. The Regional Office should then get periodic reports on the progress of that action so that, if progress is not timely, a decision can be made to reconsider the deferral.

In some instances, it may be advisable for the Regional Office to begin case development activities even while the State maintains the lead on a case. In fact, this is specifically required for sources subject to the Post-1982 Enforcement Policy. The purpose of this is to allow EPA to act much more quickly if it ever had to take the lead on the case. These activities would, of course, have to be coordinated with the State in a way that makes it clear to both the source and the State that EPA regards the State as maintaining the primary responsibility and is continuing to look to the State to resolve the matter.

When the EPA Regional Office finds that the State or local agency has not effectively addressed a violating source and will not be proceeding in a timely and effective manner, it should initiate a Federal enforcement action against the noncomplying source. In evaluating a State action, several factors should be considered:

- (1) If the source is in compliance with a schedule contained in a State decree order, EPA would examine the expeditiousness of the compliance schedule (including the incremental dates in the schedule). EPA would also examine the past compliance history of the source and the record of State enforcement to determine whether the final compliance date in the schedule is likely to be met or if it is simply a "moving target", and likely to be revised.
- (2) If the source is in violation and no schedule has been established or, though a schedule exists, the source is not meeting it, EPA would examine both the schedule (if one exists) and what the State is doing to remedy the situation. Any violation extending more than six

months without effective action would be of particular concern. EPA would look at the past compliance history of the source and the record of State enforcement actions as an indication of whether the State is likely to resolve the problem effectively.

- (3) In cases where circumstances indicate that the State will not be able to effect compliance, EPA would consider the significance of the source relative to other priorities and determine whether EPA action was warranted.
- (4) For sources subject to the Post-1982 Enforcement Policy, there is an additional set of items which an adequate court or administrative order should include, as previously discussed. The most notable of these is that there should be a significant cash penalty. Thus, for these sources, EPA may need to conduct a penalties-only action under either Section 113 or Section 120 if the State action is adequate in every way except that no penalty was obtained.

Once a Regional Office has decided to initiate a Federal action, it must first decide whether to pursue the matter as a criminal, administrative, or civil enforcement action. Section 113(c) of the Act provides criminal sanctions for violations of certain requirements of the Act. EPA must identify the cases it intends to address with a criminal enforcement action early in the case development process to assure that the Agency protects the potential defendant's rights and to assure the integrity of the criminal enforcement process. When a Regional Office receives information indicating the likelihood of criminal activity, it should refer that information to the Criminal Enforcement Division at EPA Headquarters for further investigation and prosecution in accordance with the "General Operating Procedures for the Criminal Enforcement Program" issued on October 29, 1982.

When a Regional Office decides to initiate an administrative or civil action against a violating source, the Region frequently must initially obtain information from the source that will support the enforcement action. EPA may use its information-gathering authority under Section 114 of the Act to

require the source to provide the Agency with information concerning its compliance status. Section 114 of the Act authorizes EPA to require sources to establish and maintain records, install and use monitoring equipment, perform emission tests, admit inspectors, and, in general, provide the information EPA requires to determine whether the source is in compliance. Once the response to the Section 114 letter is analyzed, an inspection of the source to document the violation more thoroughly is often required.

To begin an administrative or civil enforcement action relating to a SIP violation, EPA must issue a Notice of Violation (NOV) under Section 113(a) of the Act. Once EPA has issued an NOV, the violator has thirty days to remedy the violation. No prosecution can occur if the violating source comes into compliance within the thirty days following the issuance of an NOV. This NOV step is not required for NSPS or NESHAP violations. For those violations, EPA may proceed immediately with an administrative order or a civil or criminal action. EPA may use its information-gathering authority under Section 114 of the Act to determine whether a violation continues to exist thirty days after the issuance of an NOV. A follow-up inspection can be performed to document the continuing violation where required. In addition, if the Section 113 conference with the source to discuss the NOV is held more than 30 days after the issuance of the NOV, an admission from the source might be sought at the conference. If a violation persists beyond thirty days, or if the violation concerns NSPS or NESHAPs where no NOV is required, EPA may issue an administrative order under either Section 113(a) or Section 113(d) or initiate a civil judicial action under Section 113(b). In addition, for certain new source violations as discussed below, an administrative order may be issued or judicial action initiated under Section 167.

A Section 113(a) order is an administrative enforcement mechanism which is often effective in bringing a source into compliance quickly. It is most effective where operation and maintenance problems exist. Reading Section 113(a) in conjunction with Sections 110(i) and Section 113(d), it appears that there are strict limits on the extent to which Section 113(a) orders can be used for SIP violators. Thus, EPA has concluded that such orders

must require immediate compliance, defined as within 30 days of the effective date of the order. This limit does not apply to NSPS and NESHAP violators. For these sources, a longer period of time may be granted in a Section 113(a) order, but only when the need for additional time arises from circumstances beyond the control of the source, i.e., force majeure situations. These concepts are discussed in more detail in an April 30, 1982 memorandum from Kathleen Bennett to the Regional Administrators, entitled "Duration of Section 113(a) Orders" (See Attachment 8).

Another type of administrative enforcement mechanism is that used to halt illegal construction of a new or modified source in violation of Part C or D of the Act. For violations of the Prevention of Significant Deterioration (PSD) requirements in Part C, the appropriate order to be issued is one under Section 167. Such an order can be issued against:

- (1) A major emitting facility if it should have obtained a PSD permit but has not;
- (2) A source being constructed or operated pursuant to a State-issued PSD permit that conflicts with the requirements of the Clean Air Act, implementing regulations, or approved SIP requirements; and
- (3) A State if EPA has delegated the PSD program to the State and the State is about to issue a PSD permit which EPA believes is inconsistent with Part C or its implementing regulations.

Proposed detailed guidance regarding the use of Section 167 was sent to the Regional Offices for comment on July 7, 1983. Final guidance, reflecting a consideration of comments received, will be issued in the near future.

For violations of the new source review requirements of Part D, an available administrative enforcement mechanism is a Section 113(a)(5) order. This section requires that the Administrator make a finding that a State is not acting in compliance with the regulations referred to in Section 129(a)(1) of the

Clean Air Act Amendments of 1977 (the offset ruling) or any plan provisions required by Section 170(a)(2)(I) and Part D. Once this finding is made, EPA may issue an order under Section 113(a)(5) to a major source requiring it to refrain from or cease construction unless a valid permit is obtained from the State.

Authority to issue Section 113(a) and Section 167 orders has been delegated to Regional Administrators. Issuance of a Section 113(a)(5) or Section 167 order requires consultation with the Director, Stationary Source Compliance Division and the Associate Enforcement Counsel for Air at Headquarters. Issuance of a Section 113(a) order other than under Section 113(a)(5) requires no consultation with Headquarters.

If a source does not obey a Section 113(a) or Section 167 order or if EPA decides that a civil action is needed, the Agency may proceed in the courts under either Section 167 or Section 113(b). EPA may ask for any necessary injunctive relief under either section and, under Section 113(b), may seek civil penalties of up to \$25,000 per day of violation. A Section 167 action, unlike one under Section 113(b), does not require a Notice of Violation and documentation of a 30-day continuing violation.

Section 113(d) of the Act provides EPA and States with another administrative remedy, known as a Delayed Compliance Order (DCO). Under a DCO, EPA or a State may establish a schedule which requires compliance no later than three years after the source's SIP compliance date. (State-issued DCO's to major sources require EPA approval to be effective as a DCO.) A source which has been granted a DCO and which is in compliance with the terms of that order is not subject to further enforcement action under Section 113 for violations during the period of the DCO. However, major stationary sources can be required to pay a noncompliance penalty under Section 120 (see below), notwithstanding the DCO.

Due to the three-year limit for a DCO previously noted, there are relatively few sources eligible for DCO's for particulate matter or sulfur dioxide emission limit violations. Most of those limits were accompanied by SIP compliance deadlines more than three years past.

DCO's are much more widely available for sources violating volatile organic compound emission limits, many of which had final compliance dates of mid to late 1982.

There are two other types of DCO's which will not be discussed at length in this document, those issued under Sections 113(d)(4) and (5). While they serve important purposes, fostering use of innovative technology (Section 113(d)(4)) and conversions to coal by fuel-burning sources (Section 113(d)(5)), their application is highly limited. For similar reasons, this strategy will not discuss use of non-ferrous smelter orders under Section 119 of the Clean Air Act.

Before EPA issues a DCO, the source must meet the eligibility requirements in Section 113(d) of the Act. States may also issue DCO's but, as previously noted, any DCO issued to a major source requires EPA approval before it is effective.

Guidance regarding DCO's appears in various Agency memoranda, the most significant of which were compiled in an April 26, 1983 memorandum from Kathleen Bennett and Courtney Price to the Regional Administrators and Regional Counsels (Attachment 9). Procedures for processing delayed compliance orders are contained in Part 65 of 40 CFR. Further guidance is contained in the April 26, 1983 memorandum.

It should be clear from the description of the Agency's administrative order authority that such orders are limited and cannot be used to address many of the violations which EPA faces. Therefore, many of the EPA enforcement actions will come in the form of Section 120 proceedings (described next) or civil actions filed in Federal district courts.

In cases where a source is not in compliance with emission requirements, EPA may also seek non-compliance penalties under Section 120 of the Act. EPA may seek these penalties in addition to any relief under Section 113 of the Act. Section 120 is designed to recapture, in an administrative proceeding, the economic savings realized by sources in violation of applicable emission limits. While Section 120 is, by its terms, a penalty provision only, the prospect of a Section 120 penalty can often serve as a useful stimulant to prompt a source to come into compliance.

EPA initiates an action under Section 120 by issuing to the source a Notice of Noncompliance. Although adjudicatory hearings may occur before a source must pay a penalty, the penalty starts to accrue from the date EPA issued the Notice of Noncompliance. Consequently, it is often in the source's best interest to achieve compliance expeditiously and not frivolously use the administrative hearing process as a mechanism for delaying achieving compliance.

Of the formal responses previously outlined, Section 120 has been the most underused (approximately twenty cases so far). Efforts have been made and will continue to be made to increase its use by Regional Offices. Region II has been particularly effective at using Section 120 to encourage quick compliance. (See the memorandum discussing the use of Section 120 included as Attachment 10.)

If a Regional Office finds it appropriate to pursue litigation as its course of action for a violating source, it prepares a litigation report containing the factual and legal basis for its action and refers the report through appropriate procedures to the Department of Justice which, as the Federal government's attorney, litigates the matter on EPA's behalf.

One other possible sanction is the listing program under Section 306. It enables EPA to prevent a violating source from receiving any Federal contracts, grants, or loans once it is placed on the List of Violating Facilities. This program is coordinated by the Office of Enforcement Counsel (OEC) at Headquarters. It should be used much more extensively than it has been because it is a very powerful enforcement tool. Further guidance on the appropriate uses and procedures for Section 306 is being developed by OEC. In any event, it is important to note that listing under Section 306 is mandatory for facilities which are the subject of criminal convictions where the underlying violations have not been corrected. These listings should not await the development of further guidance.

Finally, it should be noted that it is expected that Federal facilities will fully comply with all applicable air pollution control requirements. EPA should respond promptly and vigorously to any viola-

tions under the same priorities established for other sources, making full use of the mechanisms of Executive Order 12088 and implementing procedures established by the Agency's Office of Federal Activities. State and local agencies are also encouraged to participate in the program to the maximum extent possible.

E. Considerations in Selection of an Appropriate Response

This section discussed considerations in selecting the appropriate vehicle for a Federal enforcement response once the decision has been made that a Federal response is appropriate. It is not intended to be perscriptive in nature, given that selection of a response must be based on a reasoned evaluation of all the circumstances of the case.

As previously noted, the first judgment to be made is whether to pursue a criminal action. While simultaneous civil and criminal actions are not prohibited, they should generally be avoided.

Priorities for criminal enforcement should include the following: knowing violations of State Implementation Plans that result in, or threaten, significant environmental contamination or human health hazard; knowing violations of NESHAPs requirements; and falsification of records or tampering with monitoring devices which has, or could be expected to have, a significant impact on EPA's regulatory process or decision-making. These priorities were set forth in an October 12, 1982 memorandum from Robert Perry to Regional Counsels, entitled "Criminal Enforcement Priorities for the Environmental Protection Agency."

Two other areas also deserve serious consideration for criminal investigation: criminal contempt for willful violations of civil consent decrees (punishable under 18 U.S.C. §401(3)) and violations of reporting requirements imposed by Section 114 letters.

For the large majority of cases, a criminal action would not be an appropriate response. Therefore, the other options detailed in the preceding section should be considered.

In deciding between administrative orders and civil actions, judgments should reflect a consideration of the likely effectiveness of each

option rather than artificial notions of "toughness". In the proper circumstances, an administrative response can be as effective as a judicial one.

In considering the use of a Section 113(a) order, the major factor is whether compliance can reasonably be required within 30 days. (Note that in the case of an NSPS or NESHAPs violation, this limitation does not apply if the violation arises from a force majeure event.)

In cases where compliance can be required within that period, a Section 113(a) order is often the best response since it can be issued simply and quickly. A Section 113(a) order should normally be used only where it is expected that the order may be complied with, however.

If it is felt that the source will not comply with the order, it probably would be better to select another option. This is especially true if the Regional Office believes that the source may attempt to challenge the order in a Court of Appeals under Section 307(b)(1) as a final Agency action. Since an EPA enforcement action must be brought at the District Court level, actions which invite collateral lawsuits at the Court of Appeals level should be avoided wherever possible.

Where a Section 113(a) order is not appropriate, the election generally will be between a DCO, a Section 120 action, and a civil action. (This, of course, presumes that a DCO is available.)

If a DCO is available, its use by EPA is most appropriate in cases where a source requires additional time to comply due to an unforeseen inability to comply and is acting in good faith to meet its emission requirements. This is because EPA has not routinely sought penalties for a source being issued a DCO for the period before the DCO is issued, although this is legally permissible. As noted in the July 28, 1978 guidance on use of Section 113 orders (included as part of Attachment 9):

The issuance of delayed compliance orders by either the States or EPA is discretionary. In exercising its discretion, EPA will consider any past compliance efforts and any prior State or federal enforcement actions involving the source. If, based on these and other relevant

factors, EPA determines that the source is one with an egregious history of noncompliance, recalcitrance, or environmental harm and/or that court supervision is likely to be required in order to assure expeditious compliance, the source will be considered an appropriate candidate for civil or criminal action and no federal delayed compliance order will be issued. Consequently, there will be no category of cases involving a federally issued delayed compliance order and a federal court action relating to the predelayed compliance order period. EPA will continue to urge the States to adopt a similar approach in exercising their discretion. However, EPA approval or disapproval of a State delayed compliance order will be based on the statutory criteria of Section 113(d). (p.5)

Another major factor in deciding whether to use a DCO is the policy that EPA will not issue a DCO unless the source formally consents to its issuance. The previously-referenced July 28, 1978 guidance states:

A delayed compliance order will not be issued unless the source indicates in writing (by signature of appropriate persons authorized to agree for the source) that it will agree to comply with the delayed compliance order. Source consent will be required for all Federal delayed compliance orders and is recommended for State delayed compliance orders as well. However, a source's agreement to comply is not precondition to EPA approval of a State delayed compliance order. (p.7)

The purpose of this consent provision is to give greater assurance that the source will comply and to minimize the possibility of a successful collateral challenge under Section 307(b)(1).

As an alternative to or in conjunction with a DCO, a Section 120 action should be considered. Because the amount of the Section 120 penalty is directly related to the length of the period of noncompliance following the issuance of a Notice of Noncompliance, it can serve as a powerful tool for prompting source compliance. However, this requires a judgment on the part of the Regional Office of how

the source is likely to respond. Where the source is not likely to respond positively, and injunctive relief will still be required, it is preferable to avoid the use of Section 120 and go directly to a Section 113(b) civil action for both injunctive relief and civil penalties. In addition, because issuance of a Notice of Noncompliance can lead very quickly to an adjudicatory hearing, a Notice should not be issued unless the Regional Office is prepared to proceed with such a hearing.

One circumstance in which a Section 120 order can be particularly useful is where the State has put the source on an acceptable schedule but has not collected penalties where penalties would be appropriate. EPA could defer to the State schedule in obtaining compliance and use the administrative mechanism of Section 120 to address the penalty issue in lieu of bringing a court action. In deciding between a Section 120 action and a court action, practical considerations such as how crowded the court docket is, the receptivity of the District Court judges to environmental litigation, and the readiness of the Regional Office to handle an almost immediate adjudicatory hearing should be carefully weighed.

Civil actions under Section 113(b) are most advantageous in the following situations:

- (a) a compliance schedule or other injunctive relief is necessary and an administrative order is unavailable or inappropriate;
- (b) the compliance history of the source suggests that the schedule should be subject to court supervision and contempt remedies;
- (c) substantial civil penalties for past violations are appropriate. (Note that in most cases, maximum penalties under Section 113(b) will be substantially greater than that under Section 120 because of the large per day amount and because Section 120 penalties run only from the date of the Notice of Noncompliance while Section 113(b) penalties are calculated back to the earliest date of provable violation.)

F. Ensuring Compliance with Response's Requirements

After Federal enforcement actions are resolved, EPA Regional Offices have the responsibility of monitoring the source's activities to ensure compliance with the terms of any administrative or court order. The Agency's Compliance Data System has the capability of serving as a tickler file for keeping track of interim and final compliance dates in schedules. It has been generally underused by Regional Offices for this purpose. In addition, a computerized system has recently been developed by the Agency's National Enforcement Investigations Center (NEIC) for tracking court ordered-schedules.

Regional Offices must conduct monitoring activities for their schedules sufficient to detect any failure to keep to the terms of the order. No detailed guidance is being provided here for this given that Regional Offices have extensive experience with schedule-tracking and because the monitoring effort reflects a case-by-case evaluation of the schedule itself and all the associated circumstances. When serious failures are detected, taking remedial action should be a very high priority, second only to emergency actions under Section 303. This is because such flouting of environmental requirements tends to undermine the entire regulatory framework, particularly if the violator is repeatedly unresponsive.

In order to enhance the enforceability of EPA's consent decrees, the Agency has developed model consent decree provisions. Some of the most important features to be included are:

- (1) Various increments in compliance schedules, so that source progress can be monitored. This avoids the situation of sudden discovery that the source is far behind its schedule. These milestones should be incorporated into CDS for easier tracking;
- (2) Reporting requirements, again to monitor source progress; and
- (3) Stipulated penalties, to provide an economic incentive for sources to meet incremental dates, as well as the final compliance date in the decree.

Naturally, it is critical for Regional Offices to monitor the progress of sources on State schedules, as well as those on Federal schedules. While the Regional Office need not be as intimately involved as the State, it needs sufficient information to assure that the schedule is being adhered to or that the State is responding vigorously to any slippage. Ultimately, EPA is responsible for assuring compliance with the Clean Air Act and the health and welfare of the American public.

IX. Special Issues

A. Enforcement of NESHAPs Standards

At the present time, there are final standards in place for certain source categories of four hazardous air pollutants: asbestos, beryllium, mercury, and vinyl chloride. Standards have been proposed for sources of radionuclides, arsenic and benzene.

Enforcement to date has focused on asbestos and vinyl chloride. Of the four pollutants already regulated, these two have posed the most significant incidence of noncompliance. The program should continue to focus on these two pollutants, but priorities may need to be altered as more standards become effective.

Adverse or conflicting court decisions currently affect the short term goals of the program with regard to asbestos and vinyl chloride. The Supreme Court, in Adamo Wrecking Company v. United States, 434 U.S. 275 (1978), held that certain requirements in the asbestos standard applicable to demolition operations were invalid because they were "work practice" requirements rather than numerical emission limitations. The court ruled that the Clean Air Act, prior to the 1977 amendments, did not authorize EPA to promulgate work practice standards. Until the asbestos standards are fully repromulgated, EPA should accelerate efforts to assure compliance with the portions of the standard which are not work practice standards, and portions which were repromulgated in 1978. Once the standards are fully repromulgated, the objective should be to assure compliance with the entire standard. (On July 13, 1983, EPA published a reproposal of the asbestos standard.)

EPA's experience with the asbestos demolition standard has suggested that an intensive, coordinated, highly visible effort to enforce these standards should be made as soon as they are fully repromulgated to establish the credibility of the enforcement effort and emphasize the importance EPA attaches to compliance with these standards. Discussions to plan such an effort have just begun and such a strategy will be developed prior to finalization of the July 13 proposal.

Compliance monitoring of asbestos sources, in the interim prior to full repromulgation of the standard, should focus on the enforceable portions of the standard. This means that monitoring should concentrate on source categories subject to a "no visible emissions" standard, including manufacturing sources, waste disposal activities, and demolition activities. Once the standard is fully repromulgated, a greater emphasis should be placed on demolition operations, which may present the most significant danger of exposure to the public of any regulated source category. Due to the transient nature of demolition operations, compliance monitoring requires quick response when notice of demolition or renovation is received. EPA's ability to assure compliance, at least as to demolitions and renovations, rests largely on self-reporting. Noncompliance by sources other than demolition and renovation operations can be detected primarily by sending observers to a source to look for visible emissions.

With regard to vinyl chloride, two recent court opinions have differed on the issue of whether the relief valve discharge provision in the vinyl chloride NESHAP is a work practice standard and is therefore invalid under Adamo. In United States v. Ethyl Corporation (No. 83-0120-A), the U.S. District Court for the Middle District of Louisiana ruled on July 1, 1983 that this provision was a work practice standard and thus invalid. However, in United States v. Borden (No. 83-1892-MA), decided on September 30, 1983, the U.S. District Court for the District of Massachusetts reached the opposite conclusion. The government agrees with the interpretation in the Borden case and intends to appeal the Ethyl decision to the Court of Appeals for the Fifth Circuit. The goal of the program should continue to be to promote compliance with the entire vinyl chloride standard, including the relief valve discharge standard. In this respect, EPA should become more active in moni-

toring compliance and enforcing other portions of the standard, which have previously not been given much attention, and will assure, through rulemaking if necessary, the enforceability of the entire standard.

Detecting noncompliance by vinyl chloride sources is done primarily through self-reporting. Sources are required to report each relief valve discharge within 10 days of occurrence and to report exceedances of other portions of the standard on a semi-annual basis. Compliance monitoring should, for the most part, consist of review of these submissions, but periodic inspections of company records is needed to determine whether violations are going unreported. There are only about 55 sources in the entire country subject to the standard, with a heavy concentration (about half) in Region VI.

The roles of EPA and the States in the NESHAPs program are determined primarily by delegations of authority. Under Section 112, EPA may delegate a State the authority to implement and enforce the standards. Such authority is concurrent, so EPA may still enforce the standards in a delegated State.

The statutory requirements for formal Agency response to a NESHAPs violation differ from those applicable to a violation of a State Implementation Plan. EPA is not required to issue a Notice of Violation or to confer with a source prior to issuing an administrative order under Section 113(a) or bringing a judicial enforcement action under Section 113(b). The types of response available are more limited because EPA cannot issue a Delayed Compliance Order under Section 113(d).

EPA Headquarters has issued guidance on the types of enforcement response which should be considered and the circumstances in which each should be used. Further guidance will be issued in anticipation of the repromulgation of the asbestos standard. The memorandum issued on June 28, 1983 by Michael Alushin, Acting Associate Enforcement Counsel for Air, and Ed Reich, Director of the Stationary Source Compliance Division, entitled "Enforcement of the National Emissions Standard for Vinyl Chloride" (Attachment 11), is the most current and significant guidance on responses to violations of the vinyl chloride standard.

B. Enforcement of VOC Standards

An area of increasing focus of the stationary source compliance program is the regulation of sources emitting volatile organic compounds (VOC). Such

sources are major contributors to the ozone nonattainment problem and some emit compounds which are highly toxic in nature which may be reduced through an aggressive program to enforce VOC standards.

Generally speaking, widescale regulation of VOC was initiated by the 1979 Part D SIPs. As part of those SIPs, many States adopted regulations requiring compliance on or before December 31, 1982. It is the relatively recent passage of these compliance dates which has created the need (and opportunity) to increase the attention devoted to compliance efforts for VOC sources.

A wide variety of sources emit VOC. These primarily include sources in the petroleum industry and gasoline marketing chain and makers and users of various paints and solvents. Addressing the VOC compliance problem presents some differing circumstances from earlier compliance efforts. Most importantly:

- (1) The regulated community includes a greater proportion of smaller sources and the relative impact of the emissions of those sources is probably also greater than for particulate matter or sulfur oxides;
- (2) The applicable regulations are often more complex, including the "bubbling" of multiple VOC sources;
- (3) Averaging times for compliance with VOC standards are often longer than those associated with other pollutants; and
- (4) Compliance determinations are more heavily dependent on reviewing records and calculations than on traditional observation and testing approaches.

Efforts to address the problem of VOC compliance must recognize and account for these differences.

To assist in the coordination of efforts to improve the Agency's VOC compliance program, a VOC Compliance Workgroup has been established. This workgroup will serve both as a vehicle for Regional input into the development of Headquarters guidance on VOC and as a means for technical interchange of information among the affected Headquarters and Regional Offices.

At its first meeting, the workgroup discussed the status of various Regional VOC programs and what efforts will be required to assure a fully effective, consistent national program. A number of important conclusions about the status of the VOC program which became apparent from this meeting were:

- (1) Most Regional Offices have initiated significant efforts to address the VOC problem.
- (2) Most Regional Offices believe their inventories are roughly 80% complete for Class A sources. Data are particularly weak for non-extension areas. Additional work to refine these inventories would be beneficial. Contractors could be used for this purpose.
- (3) The contribution (and importance) of Class B sources is still unclear. Further analysis of SIP inventories will be necessary to define the degree to which EPA should focus on any portion of the Class B universe. (New York City was identified as one area where Class B sources are clearly very important.)
- (4) Much of the data on VOC sources are not reflected in CDS. Here again, contractor support could be productive.
- (5) Data being received from States on sources' compliance status is often spotty and of questionable accuracy. While efforts to work with States need to be continued, broader direct Federal effort, utilizing Section 114, will likely be required. This may need OMB approval under the Paperwork Reduction Act.
- (6) Effective workshop and training programs should be continued to meet both Regional and State needs.
- (7) There is a need for a source of technical expertise on the VOC industry which the Regional Offices can utilize in their compliance programs. Various options, including use of contractors, need to be explored.

A workplan to pursue these immediate needs is under development. Efforts to provide contractor support to meet the needs of the Regional Offices to improve their inventories and reflect the data in CDS have already been initiated.

C. Continuous Compliance

An area which merits further discussion is the subject generally termed "continuous compliance". Before discussing it in detail, it is worth articulating once again the nature of the problem.

As previously noted, the major compliance monitoring technique used in the air program is the inspection. Because of the limited resources available to Federal and State agencies, inspections of a source are infrequently more often than quarterly for even the most significant sources. More typically, inspections are performed only on an annual (or less frequent) basis. Further, even when inspections are performed, they do not normally involve stack testing. Generally, stack testing is routinely performed only for the initial demonstration of compliance and thereafter if there is reason to doubt the source's continued compliance. Continuous emission monitoring technology has not been widely used and data from a monitor is not usually usable as the sole basis for an enforcement action.

Given these limitations, it is fair to assume that compliance data being reported by States do not indicate what is happening at a facility on a day-to-day basis, but rather whether the source has been determined to be in compliance at an announced inspection after it has had the opportunity to optimize the performance of its control equipment. Thus, it indicates whether the source is capable of being in compliance rather than whether it is in compliance in its day-to-day operations.

It is generally recognized that many (if not most) sources have emissions which exceed allowable levels at some time during the year. These emissions are due to such factors as unavoidable process or control equipment malfunctions, inattention to proper operation and maintenance considerations and, in a few instances, deliberate attempts to avoid the costs of maintaining compliance. These emissions may or may not be excused under various malfunction provisions in effect in various States.

A study conducted in 1978 for EPA attempted to define with greater precision the magnitude of the problem. The study consisted of about 180 controlled

and supposedly well-maintained air pollution sources of various types and sizes. Due to a lack of source records, the study was forced to draw upon a host of sources of information, including operator anecdotes and post-hoc engineering judgment by the contractors conducting the data-gathering, to quantify source emission levels. The study found that sources were experiencing emissions which were significantly in excess of established limits. Major causes of the exceedances included improper design and inadequate operation and maintenance of process and control equipment.

These conclusions were generally confirmed when EPA recently concluded a contractor effort to develop a pilot inspection scheme with a Virginia regional office. The purpose of the study was to determine whether by improving the skills of State inspectors, they could do a more effective job in identifying operation and maintenance (O&M) related problems. The program involved, among other things, utilizing differing levels of thoroughness of inspection for differing situations. (See Section VII E for greater detail.) Quoting from the report of this study:

The 68 level 3 inspections of individual processes or emission units identified 25 sources (37%) as being out of compliance with either visible or particulate emission standards. Of the total number of processes or emission units inspected 46 (67%) were identified as having O&M related problems.

It should be pointed out that of the 25 sources for which compliance problems were identified, only 12 would have been identified as a result of a Level 1 inspection (i.e. type of inspection routinely conducted prior to the study).

In addition of the 46 sources for which O&M related problems were identified, none of the problems would have been identified through the use of a Level 1 inspection. (emphasis added)

The latter observation illustrates the difficulty of characterizing the status of continuous compliance. Current inspection methods and capabilities coupled with very limited self-monitoring requirements make detection unlikely. It also highlights the point that many States may assume that there is not a problem because they can't tell.

A separate part of the 1978 study previously referred to evaluated the ability of nine exemplary State and local agencies to operate in a continuous compliance mode. Not surprisingly, the study found that while the programs were basically sound, they lacked many of the tools needed to deal effectively with continuous compliance problems. Inasmuch as the study looked at cooperative, reportedly well-maintained sources and exemplary agencies, it is reasonable to expect that the results understate the actual situation.

As a result of the related findings that the problems were widespread and significant and that front-line agencies faced serious difficulties, a continuous compliance initiative was developed. The principal thrust of this initiative was a 5-year program of State capacity building. More specifically, EPA was to lead the development of a range of useful tools which States could implement on a voluntary basis, as necessary, to address specific operational problems. Whenever possible, State interest would be identified in advance and State participation obtained through pilot programs.

Severe resource cuts and conflicting priorities almost immediately precluded implementation of the initiative as originally conceived. Notwithstanding this, some of the elements of the initiative have been incorporated into EPA's present program. The Virginia study previously referred to is an example of this. Other examples are discussed in Section X of this strategy dealing with Compliance Promotion.

While it is clear that continuous compliance presents a significant compliance problem, the environmental impact is less clear. Ambient monitoring data have established that large portions of the country are already attaining the national ambient air quality standards. That ambient monitoring data should already reflect the effects of excess emissions which may be occurring but which are not otherwise detected. If those emissions are not sufficient to interfere with attainment of the ambient standards, if the ambient data are reliable, and if the ambient standards are truly protective of public health and welfare, the environmental effects of present levels of excess emissions due to the continuous compliance problem may be less significant than once assumed.

Clearly, though, the problem of emissions arising from poor operation and maintenance has the potential to become seriously aggravated if the enforcing agencies show an indifference to attempting to ensure that continuous compliance is maintained. It is equally clear that once a substantial investment of effort and money has been made by industry and government to assure that controls are installed, efforts should be made to assure that the full benefits of the investment are realized. Therefore, serious efforts to improve industry's ability to comply on a more continuous basis and to improve the ability of governmental agencies to determine compliance on a continuous basis must be maintained. This is especially true in relation to development of improved continuous monitoring technology, either for emissions monitoring or parameter monitoring.

Elements which could be directed at improving the ability of enforcement agencies to address continuous compliance in the near and mid-term include:

- (1) following up on the Virginia inspection study to provide information to States on upgrading their inspection function;
- (2) more flexible inspection programs;
- (3) greater use of unannounced inspections;
- (4) promoting expanded use of CEM technology;
- (5) greater information exchange on CEM usage;
- (6) developing improved methods for coal-sampling and analysis for sulfur content;
- (7) developing improved information on failure modes/compliance problems and disseminating that information;
- (8) compliance promotion activities of the type discussed in Section X; and
- (9) encouraging voluntary design standards and increased attention to design review in permitting.

While this strategy has touched on many of these elements, there is no present systematic approach to coordinate efforts on an Agency-wide basis. To faci-

litate development of a coordinated and effective program to address this issue, a supplemental continuous compliance strategy document is being developed.

A question may arise as to the priority of the continuous compliance problem (especially in attainment areas) relative to the potentially very significant initial compliance problem for VOC sources. At the State and local level, this requires a judgment as to the relative environmental significance of the two problems, a judgment which could lead to differing conclusions in different areas. At the Federal level, current resource levels will limit the ability of the Agency (especially at the Headquarters level) to address both problems to the extent it would otherwise like. To the extent there is a conflicting demand for resources, the VOC problem must take precedence. This is because so much of the country exceeds ambient standards for ozone, thus exposing the public to unhealthy air, and also because of the toxic nature of many of the constituents of the VOC compounds.

Incidentally, it is questionable if the continuous compliance problem will be of comparable relative magnitude for VOC sources. It well may be that the problem will be significantly less important. This can be hypothesized for the following reasons:

- (1) VOC sources are more often controlled by product reformulation, which would be less prone to intermittent excess emissions;
- (2) to the extent that VOC emissions arise from leaks (e.g., in petroleum storage facilities), the economics of recovering product have led to substantial efforts to minimize such leaks; and
- (3) to the extent that VOC emissions are reduced through control equipment, such equipment (usually an afterburner) is much less subject to malfunction than, for example, controls typically used for particulate matter.

In summary, a modest effort at developing tools to address the continuous compliance problem is worthwhile and is recommended although these efforts must fit within priority needs to address the initial control of VOC sources.

D. Emerging Issues Associated with the Application of Bubble Rules

1. Complexity Involved in Determining Compliance with Bubbles

An issue of relatively recent origin in the air program is the increasing complexity of applicable emission limits as sources and States take advantage of the provisions allowing use of "bubbles" in EPA's Emissions Trading Policy Statement. (The existing Policy Statement was published at 47 FR 15076 (April 7, 1982) and is effective as interim guidance pending issuance of a final policy. The Agency's original bubble policy was published in December 1979.) Under the bubble concept, a source with multiple emission points, each of which is subject to specific SIP emission limitations, may propose to meet the SIP's total emission control requirements for a given criteria pollutant with a mix of controls different from that required by the generally applicable regulations. The intent is to allow sources the opportunity to install controls with the same air quality impact but at less expense by placing relatively more control on emission points with a low marginal cost of control and less on emission points with a high cost.

Much of the Agency's experience with emission trades has occurred in the regulation of VOC sources. As discussed earlier in this strategy (see Part B of this section), determining the compliance status of VOC sources is often more difficult and resource-intensive than it is for other pollutants. When VOC sources operate under approved bubbles, the complexity of making a compliance determination is compounded. With a bubble, a large number of emission points becomes subject to an interdependent set of standards. If the bubble is one for multiple facilities, the calculations necessary to evaluate VOC compliance status can be quite lengthy; making the compliance determination requires an evaluation of the emissions of all the interdependent sources for the same time period.

Further complicating compliance determinations for some sources is the fact that the Agency has approved a few VOC bubbles with longer than daily averaging periods for the application of emission standards. The existing Policy Statement generally requires that the averaging time given by a State be on no longer than a 24-hour basis. However, the concept of a daily weighted average emission rate can pose problems for the States. Industry has argued that VOC emissions cannot be quantified on a daily basis. Surface coaters, for example, often do not use each VOC-emitting machine each production day. Consequently, States are under pressure to approve emissions trades with longer than daily averaging times.

EPA is sensitive to this issue and has allowed some trades that incorporate longer-term averages for VOC sources where a daily weighted average is impractical or application of RACT is not feasible on a daily basis. However, since many more sources can be expected to want to utilize VOC bubbles in coming into compliance, the issue of averaging times for VOC trades is one which will take on increasing importance. For emission trades with longer than twenty-four hour averaging times, an additional exercise involved in evaluating the source's compliance status is determining compliance with the daily emissions cap, which must also be part of the bubble.

The concern is that there reaches a point where this complicated regulatory structure, while being theoretically enforceable, becomes unenforceable in the real world. Sources subject to VOC bubbles must keep voluminous records for all their different product lines. To determine compliance at such sources, EPA or the State must devote very considerable efforts to making detailed calculations. While this situation need not preclude the Agency from pursuing the innovations created by the policy, the Agency should carefully monitor implementation of the policy to identify whether additional attention needs to be given to ways of ensuring compliance with emission trades.

2. State Application of Generic Bubble Rules

As originally promulgated in 1979, the bubble policy statement required the States to submit each approved alternative emission reduction plan to EPA for approval as an addition to the SIP. Beginning in April 1981 with the Agency's approval of New Jersey's generic rule for VOC emissions trading, however, EPA has approved several State generic bubble rules. In the context of the Agency's auditing of the information supplied by the State for each such emissions trade, the issue of ensuring the State's adherence to the specific provisions of the generic rule in the SIP and to the Agency's Emissions Trading Policy Statement, more generally, arises.

Experience to date reveals that under generic bubbles for VOC, States may be approving emissions trades which do not always meet the applicable requirements. Should EPA find that a State has approved an emissions trade that is substantially inconsistent with a generic rule in a SIP, the Agency will be in the position of having to so notify the State and specify necessary remedial measures. If the State fails to eliminate the inconsistency, EPA may have to enforce the original SIP limits. To avoid the necessity for such Federal action, it is therefore critical that now, when the States are just beginning to utilize their EPA-approved generic rules, the Agency make serious efforts to work with the States and ensure that emissions trades are consistent with generic rules. Otherwise the Agency will face a host of new problems to address in its air enforcement program.

X. Compliance Promotion Activities

Within the constraints imposed by present resource levels, efforts will be directed at continuing compliance promotion efforts presently underway. Compliance promotion, while in no way substituting for a strong enforcement program, recognizes that many sources would like to comply with applicable standards but

may not know that standards are applicable or understand what they need to do to comply. Compliance promotion includes both technical assistance and information exchange activities.

In the past, Agency efforts generally were reflected in traditional forms of training and technical assistance. In addition to the extensive training made available to both industry and government officials through EPA's Air Pollution Training Institute, EPA has expanded considerably its technical support for State and local enforcement agencies in recent years. This has taken the form of both an expanded workshop program and case specific assistance. As the skills of State personnel improve, they may be able to transfer some of that knowledge to the sources with whom they deal. In addition, EPA is committed to working more cooperatively with the Air Pollution Control Association (APCA), especially in encouraging and supporting efforts by APCA to play a larger role in educational and information exchange programs.

As a part of its technical support for State and local enforcement agencies, EPA prepares inspection guides for specific industries. These guides enable the regulatory agencies and industry to evaluate the operation and maintenance of a source's air pollution control equipment and to confirm that it is performing properly. The guides provide specific evaluation techniques for assessing operating problems, including cookbook-type procedures for inspections, worksheets for process and emission calculations, checklists for pre-visit, visit and post-visit information and observations, technically specific do's and don'ts based on many prior similar visits, and guidance as to why each step in the inspection process is necessary and important. The guides are of equal benefit to the source and the inspector and are often requested by the affected industrial concerns.

In a similar effort to promote information exchange, EPA has been working with industry and a trade association to develop a design review handbook for selected materials handling operations (physical processing and transport). The guide is intended to aid agencies and industry in identifying and addressing air pollution control equipment design factors to mitigate potential operation and maintenance problems. Permit-issuing authorities and the affected industries will benefit from this work by assuring that proper conditions are incorporated in permits and that these conditions are understood and followed by industry.

Over the past four years, EPA has worked in close cooperation with the electric power industry, the related trade associations, manufacturers of monitoring equipment, and State and local air pollution control agencies to facilitate continuing compliance at power generating facilities. EPA cooperative activities included a survey in 1979 with the Edison Electric Institute (EEI) to determine the degree of use by their members of continuous emission monitors and the associated technical and administrative problems. As a follow-up to the survey, EPA sponsored a 1980 national conference with EEI, CEM manufacturers, and air pollution control agencies attending.

The CEM technical deficiencies documented in the 1979 survey were discussed with the CEM manufacturers and subsequent significant improvement in CEM performance was noted. These first two important meetings established EPA as the clearinghouse for CEM information, a source that industry and State and local agencies would continue to use extensively. In addition to other activities, nine technical guides were developed over the last few years in the CEM area. Industry participated in the development of these guides and is utilizing the information in their daily operations. In addition, prompted by the success of cooperative efforts in the CEM area, the Agency has been working with other interested parties in a similar effort involving coal sampling and analysis procedures.

EPA has recently begun efforts to work with industry trade groups for sources regulated by VOC standards to develop ways to facilitate compliance by sources represented by those organizations. These efforts are particularly important for VOC sources due both to the relatively recent adoption of the standards and the large number of smaller sources which may be covered by those standards. Presumably, any efforts EPA makes to enhance the ability of these sources to understand their obligations and comply can be rewarded with some very significant air quality benefits.

As an example, EPA worked with the Can Manufacturers Institute (CMI) in producing a compliance handbook for the can coating industry which was furnished to State and local officials, EPA Regional Offices, and can coaters. The handbook takes a step-by-step approach in discussing the regulation, the rationale for the RACT values, important terms and definitions, and various compliance options. With this aid, can coaters and regulatory officials can better understand the process of can coating,

the various approaches for compliance, what those approaches mean to day-to-day operations, and compliance scheduling techniques. The handbook also includes a work sheet for determining allowable and actual emissions for compliance determinations.

As another example, in discussions with representatives from the National Paint and Coating Association, it was decided that it would be very beneficial for users of coatings and regulatory officials to have a uniform data base to work from when making determinations of compliance. It was agreed that if coatings were identified by the manufacturer as to their contents with a standard data sheet which would include all the major elements for making a compliance determination, this would generally eliminate the need for individual analysis by the user or regulatory official of each coating to determine its contents.

Therefore, manufacturers of coatings have agreed that if EPA can develop this data sheet with their concurrence, they will affix this sheet to all coatings that they supply. A proposed data sheet has been submitted to the manufacturers. If accepted, EPA will routinely accept this information about the coating as the basis for determining compliance without requiring further individual analysis although, if doubt exists, testing may still be required using the approved test method. This should eliminate much individual testing, which with inexperienced personnel would likely produce more questionable results. Through the cooperative efforts of EPA and industry, the burden on all parties is reduced and the likelihood of compliance enhanced.

As a final example, EPA is involved in a cooperative project with industry to assess the reliability of a variety of bulk gasoline terminal vapor control systems in various geographic areas. Approximately sixteen to twenty systems, involving three types of control systems, are being evaluated during monthly inspections over approximately a two-year period. An inspection manual with a specific checklist of what is to be observed will be a major output of the study. The manual, together with the data accumulated on the reliability of the control systems, should provide useful information to industry to assist in assuring better performance and provide useful design considerations for future construction.

EPA will continue to look for opportunities to work cooperatively with industry groups, especially in the VOC area, which present similar benefits. However, due to resource constraints, no formal institutionalization of this program is envisioned.

XI. Major Cross-Program Elements

While there are various points of intersection between the stationary source air compliance program and other Agency compliance programs, the two which have the greatest environmental significance are the use of Section 303 (emergency episode authority) and the NESHAPs program.

A. Section 303

In the course of implementing its authority under Section 7003 of the Resource Conservation and Recovery Act (RCRA), the Agency has begun to identify situations where the emissions to the air arising from a target site are presenting a substantial health problem. If an imminent and substantial endangerment to the health of persons can be documented, an action under Section 303 of the Clean Air Act as well as Section 7003 of RCRA is appropriate. A few such joint actions have already been filed. Appropriate communications links between the various Agency groups involved in the Clean Air Act and RCRA are just being formed and solidified. Such links are most critical at the Regional level.

B. NESHAPs

The NESHAPs program overlaps significantly with other media programs, particularly the toxic substances and hazardous waste programs. For example, a regulation adopted by the Office of Toxic Substances requires school districts to notify affected persons of the presence of asbestos in schools. Although removal of asbestos is not specifically required, many schools are proceeding with removal, an activity which may be subject to the NESHAPs regulations, depending on the amount of asbestos present. Each Regional Office should develop a means of coordinating the implementation of the asbestos in schools program with monitoring compliance with demolition and renovation requirements in the NESHAP.

The asbestos NESHAP also regulates disposal of asbestos waste. Improper disposal could be subject to an action under Section 7003 or Section 3008 of RCRA and under Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act (Superfund). So far, coordination of enforcement responses which may involve two or more of these statutes has been handled informally at Headquarters on an ad hoc basis. Regional Offices should assure that all relevant program and legal counsel components are involved in an early stage in developing the Agency response to violations of more than one statute.

Failure to report a vinyl chloride relief valve discharge would subject a source to liability under NESHAPs regulations and also under proposed regulations implementing notification requirements under Superfund. Should the Region detect a failure to comply with such a reporting requirement, an action under both the Clean Air Act and Superfund should be considered.

XII. Evaluating the Effectiveness of the Compliance Program

Unfortunately, the complexity of the air program and the inter-relationships between Federal and State activities militate against simplistic formulations for evaluating the effectiveness of the stationary source compliance program. In addition, as the program has matured, indicators which at one point may have been valuable become substantially less so and new measures must be found.

Use of compliance rates is illustrative of this problem. In the early stages of the program, significant improvements in the compliance rates were expected and were viewed as a measure of the effectiveness of the program. In recent years, the compliance levels have stabilized. Given that there will always be some level of noncompliance at any point in time, it is unrealistic to assume that compliance rates will continue to improve. If stable compliance rates are accompanied by vigorous activity to identify new violators and resolve existing ones, the program can be viewed as working successfully. If the stable compliance rates are reflective of the same violators over an extended period with little movement on and off the list of violating sources, the program is stagnant and ineffective.

Further complicating the picture is the fact that decreasing compliance rates can be more indicative of a healthy program than stable or increasing rates. For selected elements of the air program, this is probably the situation right now. Large numbers of VOC sources have fairly recently become subject to State and Federal regulation. A significant percentage of these sources are not yet incorporated into the CDS data base. It is reasonable to assume that violation rates are probably higher for these sources than for the rest of the regulated universe which has been complying (or attempting to comply) since the mid-1970's. The better the effort to identify these potential violators and reflect them in the data base, the more likely the compliance rates will decline. This effect has already been noted; for the first time in recent years the percentage of SIP violators increased during FY 1983. This effect is likely to continue for some time before efforts to resolve these violators causes compliance rates to begin to improve again.

Efforts to assure continuing compliance present a similar problem. As noted in Section V, present compliance rates tend to be overstated because they do not truly reflect intermittent violations associated with malfunctions, inattention to proper operation and maintenance procedures, and other factors which will not usually surface during an annual inspection but will inevitably occur to some degree in a plant's day-to-day operation. As techniques for determining continuing compliance improve, and compliance data become more truly indicative of day-to-day operations, compliance rates should decline. Such a decline, however, should be viewed as a positive indicator, not a negative one.

All this is not to suggest that compliance statistics are irrelevant or may not be useful indicators of the health of the program. It is intended rather as an indication that compliance rates are not by themselves adequate indicators, and that changes (up or down) cannot be used to evaluate the program without a full understanding of why the changes are occurring. The assumption that an increase in the compliance rate is a sign of a strong program and a decrease the sign of a weak program is invalid. In addition, compliance trends need to be evaluated for significant movements over an extended period of time rather than reacting to short-term marginal changes.

Another potential measure of the effectiveness of the program is the number of particular actions taken by EPA and the States, such as the number of orders issued or cases referred for litigation. While again this kind of data is useful in the context of an overall evaluation, it has too often been viewed as meaningful in and of itself. Most professionals in the program do not subscribe to this view. There are numerous ways of achieving the same objective, reflective of the different State statutory authorities, enforcement philosophies, problems, experiences, relationships with sources, and so forth. Focusing on the means to the end rather than the end itself (i.e., expeditious resolution of the violation) may reduce the available options for dealing with a problem. In addition, it may lead to taking simple cases rather than complex ones (if all cases are counted the same) and often leads to accusations that cases are being brought just to get the numbers up. In addition, especially in evaluating State data, definitional differences often complicate a meaningful analysis.

As with compliance statistics, numbers of enforcement actions may be valuable if properly used as an indicator of possible problems to be investigated. While "more" is not necessarily "better", the total absence of enforcement actions may be a cause for concern. Given the potential for misuse, however, enforcement statistics are not recommended as a primary tracking tool.

Another possible area, worthy of longer term evaluation, is the direct measurement of the environmental impact of the compliance program. This approach is being considered by the Agency but it is not yet readily usable in the compliance area. For this reason, it is not being considered, at least in the short term.

Based on experience to date, the following components are suggested as useful indicators at the national level of the various elements of the program's effectiveness.

- (1) evaluation of whether inspections are being performed in accordance with the Agency's inspection frequency guidance;
- (2) an indication of the degree to which new violators are being found;
- (3) a qualitative review of the effectiveness of the State's compliance assurance procedures;

- (4) a review of whether the compliance data are being sent to EPA and entered into CDS in a timely way;
- (5) a statistical summary of the numbers of violators brought into compliance or put on an acceptable schedule during the period; and
- (6) a close tracking of a defined category of violators to determine the success of State and EPA efforts to resolve the violations expeditiously.

Obviously, data needs at the Regional level will be more extensive.

The Agency's Management Accountability System has been established as the primary vehicle for tracking and measuring the effectiveness of the program at the national level. The accountability system requirements for FY 1984 involve quarterly reporting by each Region of the following:

- a. compliance status of major sources (Class A SIP, Class A1 SIP, NSPS, NESHAPs)
- b. number of newly-identified violators (Class A SIP, Class A1 SIP, NSPS, NESHAPs)
- c. number of violators placed on an acceptable compliance schedule (Class A SIP, Class A1 SIP, NSPS, NESHAPs)
- d. number of violators achieving final emission limitations (Class A SIP, Class A1 SIP, NSPS, NESHAPs)
- e. percentage of sources which should have been inspected within the most recent four quarters (Class A1 sources, NSPS sources, and NESHAPs sources) which actually were inspected either by EPA or the States
- f. For significant violators for each Region:
 - 1. number of significant violators at the beginning of the quarter not on an acceptable compliance schedule

2. number of newly-identified significant violators during the quarter, based on report from Regions
3. number of significant violators resolved during quarter:
 - number of violators placed on acceptable compliance schedules
 - number of violators achieving final emission limitations
4. number of significant violators still out of compliance and not on an acceptable compliance schedule

This system provides a useful quantitative data base for the type of analysis described earlier. To improve further the quality of this analysis, each Regional Office will be required to submit, at the conclusion of FY 1984, a summary report on the resolution of significant violators in its Region during the year. (For purposes of this analysis, significant violators newly identified during the fiscal year will not be included.) This report will contain the number of significant violators at the beginning of the fiscal year and, of these, the number which by the end of the fiscal year are in each of the following categories:

- (a) in compliance with final emission limitations
- (b) in compliance with a Federal schedule
- (c) in compliance with an acceptable State schedule
- (d) subject to a pending Federal enforcement action
 - (1) judicial
 - (2) administrative
 - (3) informal
- (e) subject to a pending State enforcement action
 - (1) judicial
 - (2) administrative
 - (3) informal
- (f) other

A brief narrative description of the status of all sources in (d)(3), (e)(3), or (f) will also be required. In addition, specific targets for accomplishing this activity will be defined.

For a more complete picture, such data need to be combined with an annual audit of State performance (especially qualitative elements) by the Regional Office and a periodic review by Headquarters of Regional Office performance under a mechanism similar to that established in the attached memorandum of April 27, 1983 on the FY 1983 Regional Air Compliance Program Evaluation (See Attachment 12).

One element which has proven particularly difficult to evaluate and incorporate into a formal reporting system is the expeditiousness of actions taken to resolve non-compliance. For this reason, there is a strong temptation to define precise time periods for certain actions to occur so as to have a basis for evaluating whether these target time periods are met. Countervailing concerns are that any such time periods may fail to recognize legitimate differences between cases and might serve to establish a lowest common denominator for action. While it is a close question, this strategy suggests not establishing such timeframes. However, in lieu of this, in any instance where a Regional Office is deferring to the State on an enforcement action, there must be a clearly documented record of the basis for deferral, the expected State action and timetables for that action, periodic reporting by the State to the Regional Office on the progress being made and, if progress is not timely, a re-evaluation of the appropriateness of continued deferral. While this information would not need to be routinely communicated to Headquarters, Regional Offices should be able to articulate this information upon request.

XIII. Plans for Future Guidance

The following is a list of subjects for which supplementary, detailed guidance is contemplated:

- (a) assuring continuous compliance by regulated air sources;
- (b) use of unannounced inspections by EPA;
- (c) use of continuous emissions monitoring excess emissions data in the compliance program;

- (d) enforcement of VOC standards;
- (e) enforcement of asbestos demolition standards;
- (f) enforcement of benzene NESHAPs (if promulgated and as necessary);
- (g) enforcement of arsenic NESHAPs (if promulgated and as necessary);
- (h) enforcement of radionuclides NESHAPs (if promulgated and as necessary); and
- (i) enforcement of PSD requirements.

XIV. Summary Identification of Major Changes from Existing Strategies

While the stationary source compliance program is considered to be a "mature" program, it is continually evolving as new challenges are presented. Because of this continual evolution, accompanied by guidance on specific issues as they arise, it was not anticipated that a need for major changes of direction would be identified in the course of evolving this strategy document.

This, in fact, proved to be the case. The three changes which are important enough to identify in this summary section are the major revision to the Agency's guidance on inspections frequency to provide more flexibility to States (discussed in Section VII C), the recommendation of a substantially increased use of continuous emission monitoring data in the Agency's standard setting and compliance programs (discussed in Section VII F), and the increased priority and attention given to sources of VOC emissions (discussed in Section IX B).

IMPORTANT NOTES

4

Guidance on "Timely and Appropriate"
EPA/State Enforcement Response for Significant Air Violators
(06/28/84) 7/7/84

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON D C 20460

FEB - 7 1992

MEMORANDUM

SUBJECT: Issuance of Guidance on the "Timely and Appropriate Enforcement Response to Significant Air Pollution Violators"

FROM: John S. Seitz, Director *[Signature]*
Office of Air Quality Planning & Standards
[Signature]
Robert Van Heuvelen
Acting Director of Civil Enforcement

TO: Air, Pesticides and Toxics Management Division
Directors
Regions I and IV

Air and Waste Management Division Director
Region II

Air, Radiation and Toxics Division Director
Region III

Air and Radiation Division Director
Region V

Air, Pesticides and Toxics Division Director
Region VI

Air and Toxics Division Directors
Regions VII, VIII, IX and X

Regional Counsels
Regions I - X

In June of 1989, the Agency recognized the need for making a substantial revision to the Agency's Significant Violator and Timely and Appropriate Guidances. A workgroup was formed consisting of Branch Chiefs from Regions II, III, V, VII, and IX and representatives from SSCD and AED to develop a revised guidance document (Attachment I). The Penalties Section, which establishes a new standard for Federal overfiling, was developed by the State/Federal Penalties Workgroup chaired by the Air Enforcement Division (AED) with representatives from STAPPA/ALAPCO and EPA Regions and Headquarters. This document has been

thoroughly reviewed and commented upon by representatives of other Regional Offices, STAPPA and ALAPCO. A summary of these comments and responses is presented in Attachment II.

The subject guidance supersedes and consolidates previous Clean Air Act guidance related to Significant Violators (SVs), Timely and Appropriate (T&A), and Federally Reportable Violations (FRV). Specifically, this document supersedes all previous guidances on the three subjects.

This guidance applies to all "major" (as defined by the CAAA) stationary sources of air pollution which are in violation of a Federally-enforceable regulation. Note that a revision of the definition of SV was necessitated by the new emphasis placed by the CAAA upon continuous compliance by all major sources. Thus the new SV universe includes all of the present significant violators and other environmentally significant violators of concern to the EPA or State agencies. ¹ We recognize that this may represent a substantial increase in the number of SVs over the number that would have resulted from the previous definition of Significant Violator, but this revision was necessary to address significant air quality concerns of the new Act.

This guidance is being revised largely to encourage a greater degree of team-building and cooperative resolution of Significant Violators by all responsible agencies, to encourage agencies to give priority attention to those violators which they believe are most environmentally important, and to permit an increased degree of agency flexibility in identifying and resolving SVs.

This guidance is designed to foster the development of a more complete and accurate compliance picture, regardless of the short-term resource implications. It is EPA's position that by portraying a more complete and accurate compliance picture, agencies will be more likely to address the most environmentally important violators first, and will have a better opportunity to receive appropriate resources to complete the task.

Further, this guidance has been revised to more accurately reflect the time and resources necessary to bring major sources into a state of continuous compliance. To that end, the timeline for addressing a SV has been lengthened by 30 days (to 150 days), and an optional prioritization procedure has been added to help agencies focus their resources upon the most environmentally

¹ "State" as used throughout this paper also refers to local agencies where they have enforcement authority.

significant SVs. A prioritization procedure must be used in all instances where an agency is unable to address all of its SVs in a "timely and appropriate" manner, and at any other times when it so chooses. The Agency recognizes that some of the highest priority SVs may require substantially more time and resources to resolve than a routine SV. Situations where this guidance will not be met should be noted qualitatively in the routine quarterly reports to EPA Headquarters.

This guidance, by agreement of the parties, will be implemented starting at the beginning of the third quarter of FY 1992. During the remainder of the first and second quarters, each agency should compare all of the currently outstanding SVs (not including any SVs for which the agency has already initiated action) with this revised guidance. On the basis of this review, each agency should report a "revised SV list" to SSCD, and revise its AFS database accordingly.

Please feel free to contact John Rasnic of the Stationary Source Compliance Division or Michael Alushin of the Air Enforcement Division if you have any questions or comments on this document. John may be reached at (703) 308-8600 commercial or FTS 678-8600. Mike may be reached at FTS 260-2820.

Attachments

cc: S. William Becker, Executive Director
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Stationary Source Compliance Division

Michael Alushin, Enforcement Counsel Air
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Air Compliance Branch Chiefs

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ATTACHMENT I

GUIDANCE ON THE TIMELY AND APPROPRIATE (T&A) ENFORCEMENT RESPONSE TO SIGNIFICANT AIR POLLUTION VIOLATORS (SVs)

I. SCOPE AND SUMMARY OF GUIDANCE

A. Applicability

This guidance supersedes and consolidates previous guidance documents related to Significant Violators (SV), Timely and Appropriate (T&A), and Federally Reportable Violations (FRV). Specifically, this document supersedes the following guidance documents: (1) Definition of SV Contained in "EPA Accountability System -- OANR Policy Guidance", dated December 29, 1981; (2) "Significant Violators", dated June 24, 1982; (3) "Definition of Significant Violator for PM10", dated September 23, 1988; (4) "Timely and Appropriate Enforcement Response Guidance", dated April 11, 1986; and (5) "Guidance on Federally-Reportable Violations for Stationary Air Sources", dated April 11, 1986.

B. Summary of Guidance

This guidance applies to all "major" (as defined by the Clean Air Act Amendments of 1990 (CAAA)) stationary sources of air pollution which are in violation of a Federally-enforceable regulation. Note that the guidance also applies to emergency episodes or sources which construct without a valid permit. However, the timelines for resolution of such violations are substantially shorter than specified in this document. Similarly, this guidance applies to violators of asbestos demolition and renovation (D&R) regulations. However, the specific definition of SV, prioritization criteria and timelines for resolution of such violations will be found in a future Attachment to be incorporated into this document.

Once a violator is detected, the agencies shall take the following five actions:

1. The "finding" agency shall determine whether or not the source is a Significant Violator.
2. A NOV/FOV shall be issued (preferably by the State) to each SV within 45 days of such determination. ¹
3. The EPA and State shall jointly determine which has the initial lead in addressing the SV.

¹ "State" as used throughout this paper also refers to local agencies where they have enforcement authority.

4. The lead agency shall routinely address each SV as it is identified. However, if the agency is unable or unwilling to do so in a manner consistent with the timelines section of this guidance, the lead agency shall use the following optional approach. It shall first prioritize all of the SVs as outlined in Appendix A prior to initiating action against the highest priority SV. (However, to the extent the available timeframe for using Administrative Penalty authority is running out for a particular SV, the EPA may move against that SV in order to avail itself of the advantages of an administrative action.)

5. EPA shall add the newly designated SV to the SV list.

This guidance recognizes the importance of addressing the significance of penalties when resolving SV cases. Consistent with the recommendations from the "State/Federal Penalties Workgroup", EPA expects that agencies will obtain an "appropriate" penalty (including one to offset the source's economic gain) whenever it resolves a SV.

C. General Information about the Guidance

1. While EPA expects that States will address violations of air pollution regulations within their jurisdictions, except for non-delegated Federal standards, by focusing on a limited group of violators (e.g., those targeted by this guidance), this guidance is not intended to detract from the importance of addressing other violators and the right and responsibilities of the States and EPA for doing so.

2. This guidance articulates the mutual expectations of the respective parties of the Federal - State partnership in the enforcement of air pollution control requirements for stationary sources. It is fully expected that this guidance will be modified and expanded in future years to reflect experiences in its implementation and the evolution of the air program itself.

3. In accordance with the Deputy Administrator's memorandum of April 9, 1984 on Forging an Effective State/Federal Enforcement Relationship, this national guidance will serve as the framework for State specific agreements reflecting the parties' mutual expectations. As that memorandum states, "the Regions will have to accommodate differences among States, for example, where their administrative procedures require different timelines for enforcement action."

II. PHILOSOPHY OF GUIDANCE - DEFINITION OF SV

Agency Significant Violator activities shall be designed to identify and to expeditiously return to compliance those violating sources which the agency believes are environmentally most important, namely the SVs. Although this guidance requires agencies to address all Significant Violators, EPA recognizes that agencies may be unable to address all of them immediately. Each agency shall return all SVs to compliance in accordance with the Timely and Appropriate section of this guidance. Optionally the agency may utilize a quantitative targeting and prioritization procedure (similar to the one shown in Appendix A) whenever there are more SVs than there are resources available to address them consistent with the T&A section of this guidance.

A. Definition of a Significant Violator (SV)

Agencies shall deem a source to be a Significant Violator if it is:

1. A "Major" source (as defined by the CAAA, except for asbestos D&R NESHAAP), and it violates any one or more of the following:
 - a. SIP emission, monitoring or substantial procedural requirements, regardless of pollutant designation status.
 - b. NSPS emission, monitoring or substantial procedural requirements.
 - c. NESHAAP emission, monitoring or substantial procedural requirements for existing NESHAAP standards and promulgated MACT requirements.
 - d. SIP, NSPS or NESHAAP emission, procedural or monitoring requirements violated repeatedly or chronically (e.g., exceeds emission limit or gets no continuous monitoring data for 5% or more of the time in a calendar quarter).
 - e. Any provision of a Federal Consent Decree or Federal Administrative Order.
 - f. Any substantive provision of a State Judicial Order or a State Administrative Order which was issued for an underlying SIP violation.
 - g. Any requirement of Part C or Part D of Title I of the CAAA (e.g., new construction of a major source, major modification of a major source).

2. Any synthetic minor source, and it is in violation of any one or more of the following:

- a. Avoiding PSD while violating an emission limit or permit condition which affects the PSD status.
- b. Exceeding its permitted emission standard above the amount that would classify the source as a nonattainment area major source.

With respect to emergency episodes or sources which construct without a valid PSD or Part D permit (where one is required), the timelines delineated below do not pertain. In the case of emergency episodes, the seriousness of the violation would normally require expedited action. In the case of a source constructed without a required PSD or Part D permit, options for obtaining relief may be foreclosed by allowing the source to continue to construct and, therefore, expedited action may be essential.

III. PROCESSING OF SIGNIFICANT VIOLATORS

A. Agency Communications Concerning SVs

As soon as possible (at least within one month) after an agency initially detects a violation at a potential significant violator, that agency shall communicate the compliance status of that source to all other agencies which are responsible for bringing and maintaining that source into continuous compliance (e.g., State to EPA, or EPA to State). Such communications shall be performed to:

- 1. Develop and maintain a common, agreed upon list of SVs;
- 2. Determine, on a case by case basis, which agency is best suited to take the initial lead in addressing this SV; 2

-
- 2 Determining which agency will "take the initial lead" should be through mutual agreement between the agencies, on a case-by-case basis. Examples of the criteria which may be used in making the determination include, but are not limited to: agency authority and policies, particularly with respect to penalties; agency expertise with the specific process, controls, or monitors; whether or not the violator's characteristics meet those highlighted by a national/State "initiative"; and availability of resources. Normally the State agency will be given the initial lead.

3. Ensure that the SVs are returned to compliance, consistent with the T&A section of this guidance; and
4. Foster a cooperative "team-building" spirit among all of the involved agencies.

B. Processing of Significant Violators

Once a violation is detected, the agencies shall take the following five actions:

1. The "finding" agency shall compare the source's characteristics with the definition of SV contained in this guidance. To the extent that the violator fits one or more of the elements of the definition, it shall be designated as a "Significant Violator" and is subject to the Timely and Appropriate section of this guidance.
2. Within forty five (45) days after designation of the violator as a SV, a NOV or FOV shall be issued (by the State preferably) to each SV, regardless of which agency has the lead.
3. The State agency and the EPA Regional Office shall jointly decide which agency will take the lead in resolving the SV.
4. As resources become available, the lead agency shall routinely address each SV as it is identified. However, if it is unable or unwilling to do so in a manner consistent with the T&A section of this guidance, the lead agency shall use the following optional approach. It shall first prioritize all of the SVs prior to initiating action against the highest priority SV. The agency shall use a prioritization procedure similar to the "Table of Criteria and Environmental Weighting Factors" (Appendix A) to determine its priority relative to other outstanding SVs. As resources become available, the highest priority (at that time) SV shall be addressed. Once the agency initiates any type of enforcement activity related to a SV, it shall not interrupt this activity, even if a higher ranked SV is subsequently identified. Note that the prioritization step is not related to EPA assumption of responsibility for a State's SV; it is simply a means of ensuring that the most environmentally important SVs are addressed in a timely and appropriate manner.
5. EPA shall add the source to its SV list for agency tracking and reporting.

C. EPA Maintains Enforcement Authority

The Clean Air Act vests responsibility for enforcement of the law in EPA. Therefore, EPA may move independently with respect to designation of a violator as a "Significant Violator", and EPA shall assume the lead in cases when it becomes apparent that the State is unable or unwilling to act in accordance with this guidance to resolve a violation in a timely and appropriate manner.

IV. T&A TIMELINES FOR ENFORCEMENT ACTION

All SVs, except emergency episodes and sources which construct without a valid PSD or Part D permit (where one is required), are subject to the following timelines and penalty requirements (see section V below). The timeline for enforcement actions is generally the same for significant violators discovered by EPA as for those discovered by a State, regardless of which agency takes the initial lead. The only exception is for the unusual situation in which EPA assumes the lead from a State. If EPA does take over the lead, it receives up to an additional 100 days to address the SV. 3

A separate (new) timeline will be established for any additional violations discovered at an existing SV before it has been fully resolved.

A. Day Zero

The clock starts (i.e., day zero) 30 days after the discovering agency first receives information concerning a Federally enforceable violation (e.g., date of inspection, stack test or continuous emission monitoring system report). If, during this 30-day period, the enforcement agency decides that additional monitoring or analysis is required to determine or confirm the violation, the clock does not start until the earlier of the date of receipt of such additional data or on the 90th day after the -----

- 3 This guidance provides EPA Regional Offices up to 100 additional days to address a SV after it assumes the lead from a State. It should not need 150 days like it would in a normal situation. This is based upon the assumptions that EPA has closely tracked the State enforcement activity and data gathering, and will be able to rely upon the fact that the State's NOV started the penalty clock. (As stipulated in the CAAA of 1990, taking formal action, e.g., issuing an NOV/FOV, shifts the burden of proof of continuous compliance to the source, and "starts the penalty clock".)

violation was initially discovered. This additional period (up to 60 days) provides sufficient time for agency evaluation of the data to determine if a Federally enforceable violation occurred.

B. Day 45 - Routine Issuance of NOV/FOV and EPA Tracking

Unless the State agency requests that EPA issue the notice, by Day 45 the State agency shall routinely issue a NOV (if required for SIP sources), or a FOV (for non SIP sources) to the source. ⁴

If the State has not taken such action, EPA shall immediately issue an appropriate notice. ⁵

Any EPA-issued NOV or FOV, in a case where the State has the lead, will indicate that EPA is still looking to the State to resolve the matter, and further EPA action will be required only in the absence of an acceptable, prompt resolution by the State.

The issuing office will transmit a copy of any NOV or FOV it issues to other agencies in whose jurisdiction the source is located. If the violation clearly impacts upon the air quality of an adjacent State, EPA will also transmit a copy of the NOV or FOV to that State as well.

Also, EPA should add this source to its list of SVs for Agency tracking and reporting purposes.

C. Day 90 - Possible EPA Case Action

If the State has the initial lead, and none of the actions specified in E (below) have occurred by Day 90, EPA will discuss with the State the status of the State's actions and its expectations. If discussions with the State suggest that the State is close to addressing or resolving the violation or that further deferral is otherwise appropriate, EPA will continue to defer to enable the State to complete its action. If EPA determines that further deferral is not justified, it will proceed with its own action at this point.

⁴ "Routine issuance of a NOV/FOV" is required here because this starts the penalty clock against the violator, and shifts the burden of proof, to demonstrate continuous compliance, to the source, (42 U.S.C. Section 7413(e)(2)).

⁵ "Routine EPA issuance of a NOV/FOV" is specified here, not as an indication, in any way, that State agencies are incapable of getting the job done. This requirement is placed upon EPA Regional Offices because it has been noted that many sources do not seriously work to resolve their violations until after EPA puts them on formal notice and starts the penalty clock.

D. EPA Responsibilities After It Assumes the Lead

After EPA assumes the lead in a case, it will have up to an additional 100 days to get the source into compliance, onto a schedule, issue a Section 113(a) administrative order (including administrative remedies), a Section 113(d) administrative enforcement action, or subject the source to a Section 120 action or judicial referral. EPA will encourage continued State participation even in situations where EPA takes over the lead. The possibility of a joint action should be considered as an alternative to a unilateral EPA action where feasible.

E. Day 150 (no lead change), or Day 190 (lead change)

By Day 150 (or 190 with lead change), the source shall either be in compliance (RESOLVED), or ADDRESSED i.e., on a legally-enforceable and expeditious administrative or judicial order, or be subject to a referral to the (State) attorney general or (Federal) Department of Justice for an adjudicatory enforcement hearing or judicial action.

F. Resolved versus Addressed

As indicated above, the term RESOLVED shall mean that the source is returned to COMPLIANCE. Thus after the case has been addressed as per Part E (above), EPA and the State will continue to track the source. Note that the source remains on the SV list (but not carried in STARS) until it is returned to compliance (RESOLVED). Follow-up may be required in one of the following outcomes once the case has been addressed: if a schedule is established, the State will monitor compliance with that schedule and report on progress in accordance with established reporting requirements; if a referral is made, EPA will continue to monitor the progress of the case to and after filing; and if a case becomes unduly delayed, EPA will discuss this with the State and may choose to initiate a parallel Federal action. No formal timelines are being established for this stage of the enforcement process, however.

V. PENALTIES

EPA's national goal is to have all federal, State and local enforcement actions for Clean Air Act violations assess a penalty sufficient to achieve effective deterrence for the source subject to enforcement and for the regulated community as a whole. EPA assesses penalties in federal Clean Air Act actions pursuant to the Clean Air Act Stationary Source Civil Penalty Policy. Under the EPA penalty policy, both the economic benefit of noncompliance and a gravity component reflecting the seriousness of the violation are calculated. This calculated penalty may then be adjusted where appropriate for several factors including the

risks involved in litigating the enforcement action and the violator's ability to pay a penalty.

All State and local agency enforcement actions should also assess civil penalties of sufficient magnitude to maintain a credible deterrent effect. To accomplish this goal, State and local enforcement agencies should calculate (where possible) and assess the economic benefit of noncompliance. In some cases, the risks involved in litigating the case or the violator's inability to pay a penalty may justify not assessing a penalty which recaptures the full economic benefit. Legitimate litigation risks include adverse legal precedent and evidentiary problems. The inability of a violator to pay a penalty must be demonstrated by the violator through financial information analyzed by State or local environmental enforcement personnel.

An additional amount reflecting the seriousness of the violation should also be assessed. This is especially important for violations which may not have a readily calculated economic benefit but which are critical to program integrity, such as monitoring, reporting, recordkeeping and testing violations. In some cases, this additional amount may be adjusted to reflect the violator's history of compliance with air pollution laws and regulations, and the source's good faith efforts to comply. All penalty calculations in State and local enforcement actions must be documented in the appropriate case file.

EPA will consider overfiling when State or local penalties fail to meet these criteria, taking into account available federal resources and enforcement priorities.

State and local enforcement agencies are strongly encouraged to increase the statutory maximum civil penalty authorized by State or local law to at least \$10,000 per day per violation as required by Title V of the Clean Air Act, as amended, for an approved operating permits program. States and municipalities with penalty authority of less than \$10,000 per day per violation will be subject to more intensive EPA oversight and potential overfiling.

State and local enforcement agencies are also strongly encouraged to develop a penalty policy implementing these general penalty criteria. EPA will then review and evaluate, but not formally approve, these penalty policies for consistency with the general penalty criteria. A State or local enforcement agency which adopts a sound penalty policy implementing these penalty criteria and demonstrates a pattern of adherence to it will receive less case-specific EPA oversight. A State or local enforcement agency which chooses not to develop a penalty policy or which has a penalty policy that is not consistent with these penalty criteria will continue to be subject to significantly more

intensive case-specific EPA review of State and local penalties and to potential overfiling.

State and local enforcement agencies are also encouraged to use the BEN computer model developed by EPA to calculate the economic benefit of noncompliance. State and local enforcement agencies which use the BEN computer model or a similar model to calculate economic benefit will receive less intensive EPA case-specific oversight.

VI. CONSULTATION AND DATA TRANSFER

A. Informal Consultation

EPA and States should conduct frequent (at least monthly) informal consultations to discuss compliance efforts. During these discussions, information exchange relative to obtaining compliance and penalties should occur. This exchange should include at least the following items:

1. The State and EPA would each identify any newly-found violators subject to this guidance.
2. The State and EPA would each identify sources notified of noncompliance during the month.
3. The State and EPA would each identify violators where action had been taken.
4. The State would discuss the status of other enforcement actions pending or in progress, if requested by EPA.
5. EPA would identify sources for which it had completed action and provide the status for other sources where action is pending or in progress.
6. EPA would identify any sources it had found in violation and confer with the State as required above.

B. Updating EPA's Compliance Databases

The AIRS Facility (and/or NARS, as appropriate) databases will be updated by EPA and/or the State on a monthly basis to reflect:

1. Compliance status changes for newly-identified violators which are in violation on the last day of the month prior to the consultation, and which were (or are expected to be) in that status for 7 days or more.

2. Sources notified of noncompliance.

3. Sources with completed enforcement actions, including any schedules and incremental dates for returning to compliance.

4. Sources found to be in compliance with final limits.

C. Provide Inspection Results

Inspection results other than those affected by the above will be provided in accordance with current practices and EPA accountability system requirements.

D. Sharing of Data

EPA and the State will share inspection results and other monitoring reports (e.g., stack tests, CEMS) for use in enforcement proceedings to the extent practicable. State personnel should be encouraged to provide evidence, including testimony, for Federal proceedings. Federal personnel should similarly support State enforcement proceedings.

APPENDIX A
TABLE OF CRITERIA AND ENVIRONMENTAL WEIGHTING FACTORS *

Criteria	Environmental Weight Factor/Vio.
1) At least one unit at a source is (or has been) in violation of a SIP, NSPS, or NESHAPS emission, monitoring, or procedural requirement, except for asbestos D&R NESHAP	10 per unit
2) Violation of permitting requirements (PSD, Part D, or synthetic minor)	10
3) Violation of a Federal Consent Decree or Administrative Order, or of State Order w/emission viol.	10
4) Emission violation (1 time based on reference method; or >5% of quarter based on "indicator" CEMS; or >5% no data; except for opacity, use weight of 5)	10 5
<u>Add:</u> a) Amount of excess emission (known):	
o over 250 TPY	10
o 100 - 250 TPY	6
o 25 - 100 TPY	4
o 10 - 25 TPY	2
b) If excess emissions are <u>not</u> known, use size of emission point:	
o over 250 TPY	10
o 100 -250 TPY	6
o 25 - 100 TPY	4
o 10 - 25 TPY	2
c) Source is in a non-attainment area	5
d) Source is a repeat violator:	
o same emission unit or cause	7
o unrelated repeat violator	3
e) Hazardous emissions under Title III	10
f) Multi-media violator	10
g) Source is part of national initiative	5
5) Source is in violation of minor procedural requir'mt.	(-)5
6) ** Problem source (as determined by State/EPA)	1 to 10**
7) Emiss. viol'ts which occur on a 1-time or infrequent basis, AND <10 lbs/day or <2% of allowable emiss's	(-)50% of total

APPENDIX A (continued)

- * Regardless of a SV's relative priority, if the agency desires to use a preferred remedy (e.g., Federal Administrative Penalty authority with its one year "look-back" provision), and the time to do so is running out, the agency may move it up to the "head of the line".
- ** A "problem source" may include such actions as a source which fails to test, report, or install a monitoring system at all, or one which is totally uncooperative.

Examples based on Table (key parameters are underlined):

- 1) A major SIP source, which has 300 TPY excess emissions, is a repeat emission SO₂ and monitoring violator, has been in violation for 5 months, and is violating a Federal Consent Decree. Its total environmental weighting factor is calculated as follows:

$$[(\#1=10)+(\#3=10)+(\#4=10+10)+(\#4a=10)]=50 \text{ total}$$
- 2) A NSPS source, 100 TPY in potential emissions, fails to test within the timeline (1 month late) established by NSPS, and it is a first time violator. Its total environmental weighting factor is calculated as follows:

$$[(\#1=10)-(\#5=5)]=5 \text{ total}$$
- 3) An asbestos manufacturing source repeatedly fails to notify an agency about its plans to conduct compliance tests, its latest test report is totally unacceptable, and the agency considers the source to be uncooperative. Its total environmental weighting factor is calculated as follows:

$$[\#1=10]+[\#4=10]+[\#4d=7]+[\#6=7]=34 \text{ total}$$

Clearly, the first and third violators are the worst SVs, and the first one should be ranked the highest SV, and the second one should be ranked lowest. Thus, assuming that these were the only three SVs for which no follow-up action had been started, the SIP source (in the first example) should be the next SV which the agency should initiate action against.

ATTACHMENT II

SUMMARY AND RESPONSE TO COMMENTS

COMPLEXITY & BURDEN ISSUES:

- o Cost/benefit of the ranking procedure is not favorable; e.g., too complex, subject to duplication and subject to confusion among the different agencies using it (STAPPA/ALAPCO).

Response:

- It is important to have "joint" decisions throughout the process (e.g., promotion of dialogue and team-building, and case-by-case determination of which agency takes the lead makes the most effective use of agency resources, expertise and national priorities).
 - Prioritization and ranking activity was simplified (e.g., agencies which are able to address all SVs consistent with the T&A requirements, can opt out of using any prioritization procedure).
- o Virtually all violations will be rated as "major" and thus subject to the guidance (STAPPA/ALAPCO).

Response:

- The question suggests a little confusion about the language contained in the document. Whether a source is "major" or not is established by the CAAA of 1990. Therefore, by definition, all SVs must first be a "major" source. Subjecting all "major" sources with violations to this guidance is consistent with the mandate expressed in the CAAA of 1990. All other violators will be addressed, as they have in the past, in the most expeditious manner possible.
 - SSCD, with assistance from the Regional Offices and STAPPA/ALAPCO, has taken the impact of this revision upon agencies into account as we revised it. It was our goal to establish criteria in a manner which fosters agency reporting of the complete and accurate picture of the compliance status of major stationary sources, and which forms a quantitative basis for agency resource consideration.
- o Development of mutually agreeable definitions of SVs obviates the need for the weighting scheme; retain the present T&A Guidance with minor adjustments (STAPPA/ALAPCO).

Response:

The use of a "fixed", nationally consistent definition for SVs although expanded to include a larger number of sources and additional emphasis on continuous compliance (both consistent with the CAAA of 1990), has been retained to a large degree in this revision.

TABLE, EXAMPLES & SV THRESHOLD VALUE ISSUES:

- o Clarify that agencies may use either the attached "Table" (or a "comparable" one) to prioritize and rank their SVs (Regional Offices).

Response:

- SSCD, after much consideration, agreed to permit this level of flexibility. However, it is incumbent upon all agencies to take steps to ensure that all environmentally significant SVs are addressed in a timely and appropriate manner.
- o Making miscellaneous "adjustments" (e.g., additional categories, different weights, changing actual excess emissions to estimated emission rates, possibly providing factors for violators in non-attainment areas) to the Table of Criteria and the SV designation threshold are necessary (Regional Offices).

Response:

- The revised text addresses the flexibility of using a comparable table.
- o Clarify and expand the "Examples" in the Attachment (Regional Offices).

Response:

- SSCD revised the text.

ENFORCEMENT ISSUES:

- o Specify what a "Violation" is, e.g., similar to that on pages 3 and 4 of the earlier "Federally Reportable" document (Regional Offices).

Response:

- SSCD considered this possibility and decided the text was sufficiently clear.

- o Insufficient emphasis was placed upon penalties required by agencies to try to offset economic gain resulting from delayed compliance (Air Enforcement Division of EPA).

Response:

- This revision incorporated the specific recommendations made by the "State/Federal Penalties Workgroup".
- o Insufficient emphasis was placed upon the advisability and desirability of issuing a NOV/FOV at the earliest possible date (Regional Offices).

Response:

- SSCD revised the text to reflect the relevant provisions contained in the CAAA of 1990, specifically the shifting of the burden of proof from an agency to the violating source.
- o Emphasize the importance of properly protecting case-related and other confidential information (Regional Offices).

Response:

- This is an important point. However, it is not germane to the subject of this document.
- o Clarify how one should address sources which drift into and out of violation during the month. (Regional Offices).

Response:

- In addition to the line item in the Table (#5 - "chronic violator"), the text was revised to use language similar to that contained in the old "Federally Reportable Guidance."
- o Clarify that once an agency initiates any action on a SV, it should complete it regardless if a higher ranked SV is subsequently identified before the first one is resolved (Regional Offices).

Response:

- SSCD revised the text accordingly.
- o Emphasis upon "consultation" implies that EPA does not retain the ultimate responsibility and authority to make decisions relevant to federal enforcement (Regional Offices).

Response:

- SSCD revised the text to reflect the fact that EPA retains the ultimate responsibility to insure compliance with federally enforceable requirements (e.g., determining that a violator is a SV).
- o Clarify the difference between "addressed" and "resolved" as it pertains to sources which come into compliance before they are addressed (Regional Offices).

Response:

- SSCD revised the text.
- o Clarify which violations require a penalty as part of its resolution, e.g., PSVs versus SVs only (Regional Offices).

Response:

- SSCD revised the text. (Note, the PSV concept (potentially significant violators) was dropped.)

COMPATIBILITY WITH OTHER GUIDANCES ISSUES:

- o The "ranking factors" listed in this document should be totally comparable with those delineated in the CMS (Regional Offices).

Response:

- Conceptually perhaps they should be, and over time the two sets of factors will likely converge. The final "example" table contains the concensus of all commenters.
- o Clarify the relationship between this guidance and field citations (Regional Offices).

Response:

- Other than being one form of administrative penalties, there is no direct relationship. However, as such it could be one of the ways SVs are resolved in the future.

GENERAL CLARIFICATION ISSUES:

- o Clarify how many days EPA has to address an SV after it takes it over from a State (Regional Offices).

Response:

- SSCD revised the text as necessary.
- o Delineate which source categories are designated "major" in this guidance. How this relates to: (1) "affected facilities" in Title IV; and (2) Title III area sources? (Regional Offices)

Response:

- All sources affected by Title IV and "major" sources under Title III are considered "major" for purposes of this guidance. "Area sources" under Title III are not major sources by definition in the CAAA.
- o Adequately support this guidance's implementation, including: (1) scheduling Regional workshops performed by SSCD; (2) designation of Regional and HQ "SV/T&A Coordinators"; and (3) scheduling periodic teleconferences (Regional Offices).

Response:

- SSCD recognizes the importance of providing sufficient and timely support when we "launch" this revised guidance. We are contemplating how to most effectively do this. During the last workgroup discussion, many good suggestions were made. SSCD intends to implement many of these.

IMPORTANT NOTES

**Review of Application of Test Methods in Clean Air Act
Enforcement Cases
(09/24/84)**

File at Part A, Document #5



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

SEP 24 1984

OFFICE OF ENFORCEMENT
AND COMPLIANCE
MONITORING

MEMORANDUM

SUBJECT: Review of Application of Test Methods in Clean
Air Act Enforcement Cases

FROM: Michael S. Alushin *M. S. Alushin*
Associate Enforcement Counsel
Air Enforcement Division

TO: Regional Counsels
Regions I-X

The Air Enforcement Division requests that each new Clean Air Act litigation report contain a discussion of the applicable test method and whether it was correctly applied. We have revised our direct referral checklist to include a space to note the presence or absence of such a discussion. A copy of the new checklist is attached. We will also be checking for this information in non-direct referrals.

Forty CFR Part 52.12(c) states that, for the purpose of Federal enforcement, the test procedures which should be used are those specified in the applicable SIP or, if the SIP does not contain a test procedure, the appropriate test procedure as specified in 40 CFR Part 60. Defendants in several recent stationary source enforcement actions have raised, as a defense, the use of an improper test method in the testing which forms the basis of the evidence against them. In some cases, this has jeopardized the success of our enforcement actions.

EPA must make sure that every enforcement action we take is based on documentation of violations which was obtained using proper test procedures. Therefore, please make sure that all EPA tests and inspections use proper procedures. In addition, EPA needs to make sure that EPA enforcement actions using evidence obtained by State agencies are based on proper test methods.

Attachment

cc: Assistant Chiefs
Environmental Enforcement Section
Lands & Natural Resources Division
U.S. Department of Justice

AIR ENFORCEMENT DIVISION
CHECKLIST FOR REVIEW OF DIRECT REFERRALS

(All items should be addressed. Discuss special features of referral under "Comments," including strengths, innovations or deficiencies.)

Name and location of source: _____

I. Appropriateness of direct referral
(Direct referral is appropriate if all "No"
lines are checked)

- | | | |
|---------------------------------------------|----|-------|
| A. NESHAP case? | No | _____ |
| B. Post-1982 enforcement policy applicable? | No | _____ |
| C. Steel case? | No | _____ |
| D. Primary nonferrous smelter case? | No | _____ |

II. Format of the cover memo -- check for following sections:

- | | |
|--------------------------------------------------------|-------|
| A. Nature of the case | _____ |
| B. Cause of Action | _____ |
| C. Proposed Remedy | _____ |
| D. Issues of national or precedential
significance | _____ |
| E. Description of consultation for
case development | _____ |
| F. Identification of Regional contacts | _____ |

III. Substantive adequacy of referral

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| A. Cause of action | _____ |
| B. Evidence sufficient to prove cause of
action | _____ |
| C. Discussion of test method and whether
it was correctly applied | _____ |
| D. Description of attempts to settle,
includes date of last contact with source | _____ |
| E. Discussion of State involvement | _____ |
| F. Evaluation of potential defenses | _____ |
| G. Regional Office positions with regard
to significant issues are consistent with
law and national policy (Discuss under
Section IV - "Comments") | _____ |
| H. Environmental harm to be remedied or
other reasons justify pursuing the
case | _____ |
| I. Description of the remedy to be sought
or the specific discovery required to
establish a remedy in the case | _____ |

- J. Discussion of the penalties to be sought
if the case proceeds to trial
- K. Discussion of the penalties to be sought
as an initial settlement position
- L. Evaluation of potential defendants and
why the named defendants were selected

IV. Comments on Referral (attach additional sheets
as necessary)

Reviewed by: _____

Date: _____

IMPORTANT NOTES

Lined area for taking notes.

**Enforcement Policy Respecting Sources Complying
with Clean Air Act Requirements by Shutdown
(11/27/85)**

File at Part A, Document #6



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

NOV 27 1985

OFFICE OF ENFORCEMENT
AND COMPLIANCE
MONITORING

MEMORANDUM

SUBJECT: Enforcement Policy Respecting Sources Complying
With Clean Air Act Requirements By Shutdown

FROM: Courtney M. Price *Courtney M. Price*
Assistant Administrator for Enforcement
and Compliance Monitoring

TO: Air and Waste Management Division Directors
Regions II, VI, VII, and VIII

Air Management Division Directors
Region I, III, V, and IX

Air, Pesticides, and Toxics Management
Division Directors
Regions IV and X

Regional Counsels
Regions I-X

Attached is a memorandum providing guidance for your use in addressing sources that intend to comply with Clean Air Act requirements by shutting down. The relationship of this policy statement to previous policy statements on the same subject is as follows.

On June 18, 1979, the Administrator established an enforcement policy under the Clean Air and Clean Water Acts respecting sources intending to come into compliance by shutting down. (See Administrator's Memorandum of June 18, 1979, "Limited Life Facilities--Policy Statement.") On September 20, 1982 and January 12, 1983, EPA affirmed that the "Limited Life Facilities" policy would apply beyond the end of 1982 under the Clean Air Act for noncomplying sources in primary nonattainment areas where attainment was to have been achieved by the end of 1982. (See the Administrator's Memorandum of September 20, 1982,

"Enforcement Action Against Stationary Air Sources Which Will Not Be In Compliance by December 31, 1982," and the January 12, 1983 Memorandum, "Guidance on Implementation of the 1982 Deadline Enforcement Policy Issued September 20, 1982," issued jointly by the Associate Administrator and General Counsel and the Assistant Administrator for Air, Noise and Radiation.)

For Clean Air Act sources, the present policy, "Clean Air Act Enforcement Policy Respecting Sources Complying By Shutdown," supersedes the enforcement policy issued by the Administrator on June 18, 1979 entitled "Limited Life Facilities-Policy Statement." A memorandum amending relevant portions of the September 20, 1982 and January 12, 1983 memoranda to make them consistent with today's policy statement is being issued along with this memorandum.

Attachment

ENFORCEMENT POLICY RESPECTING SOURCES COMPLYING
WITH CLEAN AIR ACT REQUIREMENTS BY SHUTDOWN

NOTE: THE POLICIES ESTABLISHED IN THIS DOCUMENT ARE INTENDED SOLELY FOR THE GUIDANCE OF GOVERNMENT PERSONNEL AND ARE NOT INTENDED TO CREATE ANY RIGHTS, SUBSTANTIVE OR PROCEDURAL, ENFORCEABLE BY A PARTY IN LITIGATION WITH THE UNITED STATES. THE AGENCY RESERVES THE RIGHT TO ACT AT VARIANCE WITH THESE POLICIES AND TO CHANGE THEM AT ANY TIME WITHOUT PUBLIC NOTICE.

I. Applicability

This policy applies to all sources which are in violation of Clean Air Act SIP, NSPS, or NESHAP's requirements, where the owner intends to achieve compliance by shutting down the source rather than by installing controls.¹ The policy applies to sources in all air quality regions, regardless of attainment status.

II. Enforcement Policy For Sources Complying by Shutdown

Section 113 of the Clean Air Act authorizes EPA to seek injunctions against sources in violation of Clean Air Act requirements. When applying to the court for a compliance schedule or when negotiating one with a defendant, EPA has consistently interpreted the Act as requiring compliance as expeditiously as practicable.

In cases where the owner intends to achieve compliance by shutting down the source, the question arises as to what constitutes an expeditious compliance schedule. EPA believes that there are two fundamental types of shutdown situations, with a different treatment being appropriate for each.

A. NESHAP Sources, NSPS Sources, and SIP Sources Not Being Replaced

Where a source is violating NESHAP or NSPS requirements, or is violating SIP requirements and is not to be expeditiously replaced (as discussed below), EPA believes that the Clean

¹ As used herein, the phrase "install controls" includes: (1) the replacement, or upgrading, of inadequate previously-installed controls; and (2) process changes involving significant developmental costs. An example of the latter class of cases would be product reformulation in the case of VOC sources. Where developmental costs can be recouped at other sources owned by the source owner, Section II.B will not be applicable, however.

Air Act requires an expeditious shutdown of the violating source. Allowing sources violating NESHAP, NSPS, PSD or NSR requirements to operate more than a minimal amount of time without controls would subvert the environmental purposes behind the Act's requirements pertaining to such sources. Moreover, allowing such sources or any other SIP sources which will not be controlled more than a minimal period of uncontrolled operation would merely afford the owner an opportunity to maximize profits at the expense of the environment.

How expeditiously sources falling into the above categories must shut down is to be determined on a case-by-case basis. The most important factors to be considered are legal restraints on closing, such as union agreements and bankruptcy court orders. As necessary in appropriate cases, EPA should apply to the relevant legal authorities for removal of any such constraints. In NESHAPs cases or in any other cases involving a significant public health risk, violating sources must be shut down as quickly as possible.

For sources subject to this Subsection (II.A), the period within which expeditious shutdown must occur runs from the time at which it is determined that the owner intends to comply by shutdown. EPA should apply to the appropriate court for injunctive relief if an acceptable expeditious shutdown schedule cannot be speedily negotiated. Any negotiated schedule should be memorialized in a judicially enforceable consent agreement and lodged with the appropriate court.

B. Possible Extensions for Noncomplying SIP Sources Which Will Be Replaced

If the owner intends to replace a source violating a SIP requirement by transferring the production to some other facility in the same geographical area², and the replacement source is not yet constructed and/or operable, EPA may exercise its enforcement discretion to delay shutdown of the violating source until the replacement facility is constructed and operable. The factors that EPA will take into account in determining whether to exercise such discretion will include:

1. The attainment status of the air quality region in which the source is located, including whether the region's deadline for achieving the NAAQS has passed,

²If the replacement source were not located in the same area as the violating source, the benefits of the extended shutdown schedule would be reaped by some community other than the one carrying the environmental burden of the extended period of noncomplying operation.

2. The impact of the violating source's excess emissions on the air quality of the region,
3. The time elapsed since the source was required to have achieved compliance, and the efforts which the source owner has made to achieve compliance,
4. The impact on workers and the company of any disruption in production which might be occasioned by a shutdown prior to the replacement source's being operable, and
5. The owner's record of compliance with all environmental regulations at the affected facility, and at other facilities owned by the same owner.
6. Shutdown of the violating source need not consist of physically destroying or dismantling the source. However, in cases where the source owner does not wish to destroy or dismantle the source, a responsible official of the source owner must submit an affidavit specifying that the owner does not, at the time the affidavit is given, intend to resume operating the source within at least three years following shutdown.

The replacement facility need not be a one-for-one replication of the violating facility but it must involve some substantial construction necessary to permit the transfer of production to the replacement facility. The replacement facility need not emit the same pollutant as the violating source. The replacement facility may include a pre-existing source, provided some substantial construction is necessary to make the transfer of production feasible. Finally, for the purposes of this paragraph, the installation or upgrading of controls at the replacement facility may constitute construction provided the installation or upgrading is necessary for the replacement facility to achieve or maintain compliance after the production is transferred.

In cases where EPA decides to exercise its enforcement discretion to delay shutdown until the replacement of the violating source, the owner must enter into a judicially enforceable consent decree providing as follows:

1. The consent decree must require shutdown of the violating source by a date certain. This date must be no later than the earliest date by which the replacement facility can be constructed and rendered operable on an

expeditious schedule, as measured from the time when it is determined that the owner of the source intends to achieve compliance by shutdown.

2. The decree must require the posting of a surety bond or equivalent mechanism providing for an automatic forfeiture in the event shutdown does not occur by the agreed-upon date. The bond should be in an amount representing the cost of installing adequate controls on the violating source.
3. Notwithstanding the provision of a bond, the decree must contain a clause reserving the government's right to seek other relief in the event the source fails to be timely shut down.
4. The decree must contain a stipulated penalty provision setting a daily penalty for any operation of the violating source beyond the shutdown date. The amount of this penalty should be sufficient to, at a minimum, recapture any economic benefit attributable to the noncomplying operation, above and beyond the capital cost of controls forfeitable pursuant to the bond required by Subparagraph 2 above.
5. The consent decree must provide that the violating source will be either demolished or dismantled, or that, upon any reactivation for a business reason arising after the shutdown, the source would constitute a new source under applicable federal regulations including, where applicable, new source review regulations.
6. All agreements regarding shutdown must be made binding on all successors-in-interest to the owner.
7. The consent decree must require a schedule of construction for the replacement facility with appropriate interim dates and stipulated penalties for any violations of the construction schedule.
8. The decree must require the owner to demonstrate and maintain compliance with all emission standards applicable to all emission points at the replacement facility which are associated with the transferred production. The compliance demonstration should, if feasible, occur prior to the transfer of production. An exception can be made in cases where a brief shakedown period is required, or where conditions prior to the transfer of production would not constitute representative operating conditions. The decree should provide that compliance shall be maintained at the replacement facility until

the termination of the decree, if that date occurs later than the date of the required compliance demonstration.

9. The decree should provide that the company shall comply with the terms and conditions of any state, local, or federal permits applicable to the sources associated with the transferred production at the replacement facility.
10. The decree must require implementation of appropriate interim measures at the violating facility to minimize the impact of continued noncomplying operation on the environment. If the violating source is uncontrolled, the decree must require implementation of whatever operation and maintenance practices are appropriate. If the source already has controls, the decree must at a minimum require the best practicable operation and maintenance of those controls until the time of shutdown.³ In cases where an appropriate limit can be set, the decree must require compliance with interim emissions limits, as a tool for ensuring compliance with interim operation and maintenance procedures, and must provide for stipulated penalties for violations of such interim emission limits.
11. The decree must contain reporting requirements regarding such matters as increments of progress in compliance schedules, implementation of interim control measures, and compliance with interim emissions levels.
12. The decree must provide, in accordance with the applicable civil penalty policy, for the payment of a civil penalty respecting the violations at the violating source, and respecting any violations at the replacement source. The penalty must cover the period beginning at the date of the earliest provable violation to the date that compliance will be achieved. The end of this period for the violating source being closed down will be the date of shutdown. The end date with respect to any noncomplying replacement source is the date that a successful compliance demonstration is conducted.
13. The termination clause of the decree must provide that the jurisdiction of the court will continue until the later of the shutdown of the violating facility or the compliance demonstration at the replacement facility.

³There have been occasions when control equipment was available on a rental basis. In any such cases, use of the rental equipment should be required.

C. Avoiding Abuse of This Policy

Experience has shown that some source owners may seek to obtain shutdown schedules longer than otherwise allowed under this policy by delaying to acknowledge that shutdown is contemplated for a source which has become the subject of an enforcement action. In order to avoid such abuse of the shutdown policy, the following procedures should be employed:

1. At the time of EPA's initial contact with the source owner subsequent to issuance of an N.O.V., EPA should routinely advise the source owner of the policy respecting sources complying by shutdown.
2. If the owner acknowledges in a timely fashion that shutdown is a possibility for the source, but indicates that the shutdown decision has not been finalized, EPA may, in appropriate cases, exercise its discretion to afford the owner a brief period to complete any decision-making regarding whether the source will be shut down and, if so, whether it will be replaced within the meaning of Section II.B. The amount of time afforded should be the absolute minimum procedurally necessary for authorized officials of the source's owner to make the relevant decisions.

III. Effective Date

This policy applies to all cases referred to Headquarters or, in the case of direct referrals, to DOJ, subsequent to December 15, 1985.

IMPORTANT NOTES

Guidance on Federally-Reportable Violations
for Stationary Sources
(04/11/86)

File at Part A, Document #7

*Original copy -
41 (part 1)*



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

See your serial by 7/14/86 Part II

APR 11 1986

OFFICE OF
AIR AND RADIATION

MEMORANDUM

SUBJECT: Guidance on Federally-Reportable Violations for
Stationary Air Sources

FROM: J. Craig Potter
Assistant Administrator
for Air and Radiation (ANR-443)

J. Craig Potter

TO: Regional Administrators
Regions I - X

Attached is guidance on what constitutes a Federal-reportable violation for stationary air sources. This guidance is the culmination of an extended effort initiated in FY 1985 within the Agency and with representatives of State and local air agencies. This guidance should be implemented in FY 1987 through your State enforcement agreements or similar appropriate vehicle. Once implemented, it should improve immeasurably our understanding of, and ability to deal with, the problem of assuring continuous compliance by stationary air sources.

Traditionally, compliance status information is reported to EPA by States on a "snapshot" basis. This means the State reports the compliance status of the source (based on the most recent assessment) as of the end of the reporting period, generally quarterly. Thus EPA would know the source's compliance status only as of the end of each reporting period. It would not know of any changes in compliance status which took place during the period not reflected by the status as of the end of the period.

This was not a serious problem when the focus of the compliance program was on obtaining initial compliance and compliance status changed only infrequently. However, as the focus has broadened to include maintaining continuous compliance, the current method of reporting is inadequate. For instance, a source could go in and out of compliance multiple times within a reporting cycle due to poor operation and maintenance practices. Yet, if it were in compliance at the period's end, under the snapshot approach the source would be reported in CDS as being in compliance with no record of the continuous compliance problems having occurred.

This results in an understating of the true noncompliance rate and makes it more difficult to assess and improve the effectiveness of the program. It also tends to mask compliance problems of intermittent violators, sometimes delaying assuring that those sources are brought into continuous compliance.

The attached guidance addresses this problem by requiring that information be provided on many violations which occur and are resolved wholly within the reporting period. This will significantly improve our understanding of the true compliance picture for those sources and what actions are being taken to resolve the violations.

This guidance was accepted by STAPPA at its March 18 Board of Directors meeting. It was not accented by the ALAPCO Board of Directors. However, given the fundamental importance of improving the current system and the willingness of STAPPA to accept the guidance, we believe it is important to implement the guidance in FY 1987 as planned.

I think it is particularly important that the guidance be implemented in the spirit in which it is intended. Concerns have been expressed about highly obtrusive Federal enforcement actions and undue reporting burdens. To address these concerns, I would like to provide the following guidance.

Where a newly-identified violation has already been resolved at the time of reporting to EPA, an EPA enforcement action would rarely be warranted. (Even under the timely and appropriate response guidance, such violations would normally be resolved before EPA issues a Notice of Violation.) If the violation appears to be an isolated one, no EPA action is warranted. If, however, the violation is part of a pattern of such violations by the source, it is certainly appropriate to raise the matter with the State or local agency and to assure that action is taken to resolve the pattern of persistent violations.

Relative to the reporting of information to EPA, this guidance necessarily requires reporting of additional data to EPA for inclusion in the Compliance Data System (CDS). Such data, once received, must be entered into CDS in a timely manner. The guidance also requires that certain additional information about the violation be made readily available to EPA upon request. This information should be requested only when essential for a clearly-defined purpose and with full sensitivity to the potential resource burdens information requests create.

- 3 -

I believe implementation of this guidance constitutes an important milestone for our air compliance program. I look forward to working with you and our State and local agency colleagues in assuring its successful implementation in FY 1987.

Attachment

GUIDANCE ON FEDERALLY-REPORTABLE VIOLATIONS
FOR STATIONARY AIR SOURCES

INTRODUCTION

A basic objective of the Federal EPA's air program is to ensure national consistency in the interpretation and implementation of the Clean Air Act. Nowhere is consistency more critical than in the area of enforcement. The primary enforcement responsibility of the Act clearly lies with the States. ^{1/} However, EPA has a well-defined and important role as well.

The Agency is charged by the Act with assuring that State programs enforcing State Implementation Plans and, where delegated, NSPS and NESHAPS standards, are adequately and consistently implemented and regulations enforced. This responsibility has been met through various State program oversight activities (NAAS), grant negotiations, and by requiring the reporting of certain State compliance monitoring and enforcement activities. The primary existing mechanism by which State actions are reported to EPA is through the Compliance Data System (CDS). A continuing problem with this oversight function is that while there is a mechanism for tracking data on violations, EPA has never clearly defined in national guidance what it considers to be a reportable violation.

While a State agency's legal obligation to enforce its regulations is clear, some discretion exists on what violations should be reported, and when and how such violations are to be reported. Such discretion generally allows the agency to direct limited resources to areas of greatest need and to respond more equitably to different types and magnitudes of violations. However, it can also lead to excessively variable practices on what to report as a violation and when to report it, resulting in unequal treatment of sources.

^{1/} "State" as used throughout this guidance also refers to local agencies where they have enforcement authority.

All Regions have developed approaches in working with State agencies on reporting of violations. However, in the absence of national guidance, inconsistencies exist from Region to Region, and State to State, regarding what constitutes a reportable violation, when and how it is entered in CDS, and what information is necessary to support the reported violation. It is the intent of this guidance to address the basis of these inconsistencies and minimize their impact. It is not the intent of this guidance to require compliance status information for purposes of the Agency routinely overriding basic State enforcement responsibility and decision making.

The task of developing the above mentioned national guidance is divided into five basic issues:

- ° What is a Federally-reportable violation, i.e., which violations does EPA want reported to it by the State?
- ° What specific information about reportable violations does EPA require to effectively monitor the universe of violating sources? How will the minimum information to be reported on violators be transmitted to EPA?
- ° At what frequency must minimum information on violators be reported to EPA?
- ° How will the compliance status of reported violators be tracked?
- ° How will EPA use the information provided to it by the State?

These issues are addressed in the following sections. They deal only with State reporting of fundamental data about violators of Federally-enforceable air requirements. For the purposes of this guidance, violators include significant violators as well as all other violators that meet the criteria discussed below.

The scope of reporting and reporting procedures and frequency required by this guidance do not supercede the monthly informal consultations and monthly updating of CDS required for sources subject to the "Guidance on 'Timely and Appropriate' EPA/State Enforcement Response for Significant Air Violators", dated June 1984.

REPORTABLE VIOLATION

The task here is not to establish what constitutes a violation, but rather to assess whether a violation of a Federally-enforceable requirement should be reported by the State to EPA. That is, all detected violations are not of immediate Federal concern. However, certain violations are. National guidance that permits the States to make this distinction is provided below.

For a violation to be reportable to EPA, two conditions must be met. First, the source must either be an NSPS or NESHAPS facility or, if a SIP source (including those subject to NSR and PSD regulations), be classified A1 or A2 (by the EPA definition of class).

Secondly, to be Federally-reportable, a violation must also meet at least one of the following criteria 2/:

1. Any emissions or significant procedural violation of a State consent decree, court order, or administrative order, which was issued by the State to resolve a Federally-enforceable violation.

2/ For the purpose of this guidance, specific terms used in the above criteria are defined in the following manner:

- ° An emissions violation includes not only a violation of numerical emissions limitations but also violations of other requirements that directly impact the amount of allowable emissions, such as equipment standards, work practice standards, and sulfur-in-fuel limitations.
- ° A significant procedural violation of a State consent decree, court order, or administrative order includes failure by the source to accomplish or maintain interim emission reductions and failure to achieve interim increments of progress which jeopardizes the ability of the source to meet the final compliance dates.
- ° A significant procedural NSPS violation includes such source activities as failure to install a Continuous Emission Monitoring System (CEMS) or other monitoring equipment, failure to conduct timely performance tests, and failure to conduct appropriate monitoring and associated recordkeeping. It does not include a failure to report on time such activities as start of construction or operation and late reporting of quarterly compliance reports.
- ° A continuing violation (emission or significant procedural) shall include violations which, while not necessarily continuous for seven days (i.e., 168 or more hours), reoccur regularly or intermittently, and have not been adequately addressed or resolved by the source. A violation of this nature shall become reportable if it cannot be or is not resolved within seven days after the enforcement agency first becomes aware of the violation. Such a violation is Federally-reportable even if a source is in compliance on the last day of the reporting period, i.e., at the time of the traditional static "snapshot."
- ° A significant procedural SIP violation includes such source activities as failure to install CEMS, failure to obtain required permits (NSR and PSD), and the like.

2. Any violation of a NESHAPS requirement, emissions or procedural.
3. Any emissions or significant procedural violation of an NSPS requirement continuing for, or likely to continue for, at least seven days.
4. Any emissions or significant procedural violation of a Federally-approved or Federally-promulgated SIP requirement (including an NSR or PSD regulation) continuing for, or likely to continue for, at least seven days.

Any violation determined through a Continuous Emission Monitoring System (CEMS) or any other continuous monitoring device or method, where such device or method is the official emissions compliance test method prescribed by a Federally-enforceable SIP, NSPS, or NESHAPS requirement, would be covered by and reportable under one of the criteria specified above.

REPORTABLE VIOLATION DATA

In order for EPA to carry out its national program oversight responsibility, the State must provide adequate information about the reported violation and their enforcement position in a timely fashion to assure EPA that the violation is being properly addressed. Because this places a reporting burden on the State, only essential information needed to satisfy the EPA oversight mission will be required. A portion of these data, as discussed later, will be tracked through CDS.

At a minimum, the following information, where applicable, must be provided or made available to EPA for all reportable violations. The information for items 1-3 must be reported to EPA in all instances. Items 4-6 need not be regularly reported to EPA, however, they must be made readily available upon EPA's request.

1. Source and emission point identification data;
2. Nature of violation (i.e., pollutant and emissions or procedural violation), location of violation (i.e., point, process or unit), and the Federally-enforceable regulation that has been violated;
3. Method and date of initial detection, e.g., stack test, quarterly compliance report, inspection report, malfunction report;
4. Duration and magnitude if emissions violation;
5. Known/possible causes of violation, e.g., lack of proper O&M, emergency release; and
6. State enforcement position and timeframe of expected action.

Once a source has been returned to compliance, the method of compliance verification and the date of compliance achievement must as well be reported in all instances to EPA according to the same frequency as reporting violations.

If the Region receives copies of State inspection reports, these may serve in lieu of the above-listed minimum information if the State inspection reports provide sufficiently detailed information, at the required reporting frequency, to permit EPA to meet its mission as stated in this guidance.

The minimum information detailed for items 1-3 above should be entered into CDS in a timely fashion. The information required to be regularly reported or made available to EPA from States on all reportable violations may be transmitted either by personal communications, manual reports, or through CDS. However, for items 4 and 5, it will be sufficient if the information is made available to EPA during an onsite visit if the State prefers.

FREQUENCY OF REPORTING

The information required by this guidance to be reported to EPA must be reported on at least a quarterly basis. For newly reported violators, the initial quarterly report should consist of the minimum information discussed under the "Reportable Violation Data" section, to the extent it is available at that time. Subsequent quarterly reports should at least consist of compliance status changes that occurred during the past quarter. All such information shall be reported to EPA not more than 45 calendar days after the close of the quarter the information became known to the State.

METHODS OF COMPLIANCE TRACKING

The compliance status of reported violators will be tracked in CDS by two procedures. One will be the traditional static "snapshot" based on the most recently observed compliance assessment of the source, generally meant to be the compliance status of record as of the end of the quarterly reporting period. This compliance status is defined to be the most recently confirmed assessment of source compliance of Federally-regulated processes, emission points, or units for all Federally-regulated air pollutants.

The second compliance indicator is intended to track the performance record of such sources, i.e., a more continuous assessment of compliance, insofar as that information is available to the enforcement agency. For instance, a source could

go in and out of compliance multiple times within a quarter's reporting cycle. Yet, if it was in compliance at quarter's end, under the snapshot approach, the source would be reported in CDS as being in compliance with no record of the continuous compliance problems having occurred. A great deal of valuable information about a source's operational characteristics, and difficulties, is lost using such traditional static compliance reporting methods. In addition, a static assessment of compliance does not lend itself to an evaluation of truly representative operating conditions when a physical site visit is made, nor does it encourage source practices that maintain compliance on a more continuous basis.

To accommodate this second assessment procedure, a continuous compliance status indicator code will be entered in CDS. With the addition of such an indicator, not only will we know a source's static compliance status, but we will as well know its compliance picture during the reporting period even though its static compliance status may not indicate a violation at quarter's end. The actual form, mechanics, and schedule of CDS modifications necessary to monitor the continuous compliance history of sources will follow in more detailed guidance at a later date. However, the concept is to enable agencies to more effectively monitor the continuous compliance practices of problem sources.

EPA USE OF DATA

EPA has a bonafide mission of national program oversight. The type and amount of information EPA is requiring the State to provide about reportable violations through this guidance is necessary to achieve that mission. More specifically, EPA will use these data to:

1. Maintain a nationally consistent and uniform Federal/State compliance program;
2. Assess the State's ability to implement and enforce compliance with the Act;
3. Identify the national air compliance program's strengths and weaknesses, and improve the program in areas where the data indicate a need;
4. Determine what is a "realistic" noncompliance rate; and
5. Provide EPA Regions with more detailed background data for monthly conferences with their States.

IMPORTANT NOTES

Timely and Appropriate Enforcement Guidance
(04/11/86)

File at Part A, Document #8

*Supplemental by
H 4, part H-*



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 11 1986

Suppose - send by # 4, Paul H
OFFICE OF
AIR AND RADIATION

MEMORANDUM

SUBJECT: Timely and Appropriate Enforcement Response Guidance

FROM: J. Craig Potter
Assistant Administrator
for Air and Radiation (ANR-443)

J. Craig Potter

TO: Regional Administrators
Regions I - X

Attached is revised guidance on timely and appropriate enforcement response for significant air violators. This guidance should be used in your negotiation of State enforcement agreements for FY 1987.

The only substantive change to the current guidance made by the revision is to extend the coverage to include NESHAPS sources. NESHAPS violators were not initially covered because it was felt that the 120-day timeline for resolution of such violations was too long. However, by not including NESHAPS violators, they were not covered by the mandatory penalty provision or the monthly consultation provisions of the national guidance (although many State enforcement agreements extended such provisions to NESHAPS violators.) To remedy this, starting in FY 1987, NESHAPS sources will be subject to the penalty, data transfer, and consultation requirements of the guidance but not the timeline. The timeline will continue to be inapplicable since, as indicated in the guidance, action against NESHAPS sources should proceed more quickly than the timeline would permit.

This change was accepted by STAPPA and ALAPCO at their mid-winter meetings in Jackson, Wyoming. It should improve both the consistency and the effectiveness of our compliance program. If you have any questions about interpretation or implementation of the guidance, please call Ed Reich, Director, Stationary Source Compliance Division, at 382-2807.

Attachment

April 1986

**GUIDANCE ON TIMELY AND APPROPRIATE STATE/EPA ENFORCEMENT
RESPONSES FOR SIGNIFICANT AIR POLLUTION VIOLATORS**

I. Scope of Guidance

- A.1. It is assumed that States* will address any violations of air pollution regulations within their jurisdictions (except for non-delegated Federal standards). By focusing on a limited group of violators for purposes of this guidance, it is not intended to detract from the importance of addressing other violators and the right and responsibilities of the States and EPA for doing so.
2. This guidance is an initial step towards clarifying mutual expectations of the respective parties of the Federal-State partnership in the enforcement of air pollution control requirements for stationary sources. It is fully expected that it will be modified and expanded in future years to reflect experiences in its initial implementation and the evolution of the air program itself.
3. In accordance with the Deputy Administrator's memorandum of April 9, 1984 on Forging an Effective State/Federal Enforcement Relationship, this national guidance will serve as the framework for State-specific agreements reflecting the parties' mutual expectations. As that memorandum states, "[t]he Regions will have to accommodate differences among States, for example, where their administrative procedures require different timelines for enforcement action."
- B.1. This guidance applies to the following classes of significant violators:
 - (a) Class A SIP violators in nonattainment areas in violation for the pollutant for which the area is nonattainment, and

* "State" as used throughout this paper also refers to local agencies where they have enforcement authority.

- (b) NSPS violators (where delegated) and sources operating in violation of Part C (PSD) and Part D (nonattainment areas) permit requirements.
 - (c) NESHAPs violators (where delegated). However, the timeline and NOV provisions in Sections II and III are inapplicable to NESHAPs violations since action against such sources must proceed more quickly than the timelines would permit.
2. This guidance does not apply to emergency episodes or sources constructing without a valid PSD or Part D permit where required (or in violation of such a permit). In the case of emergency episodes, the seriousness of the violation would normally require expedited action. In the case of a source constructing without a required PSD or Part D permit or in violation of a permit, options for obtaining relief may be foreclosed by allowing the source to continue to construct and, therefore, expedited action may be essential.

II. Timelines for Enforcement Action

- A.1. The clock starts (i.e., day zero) 30 days after the date of the inspection or receipt of a source self-monitoring report which first identifies the violation. This provides sufficient time for an evaluation of the inspection or source report data to determine if a violation exists. If, during this 30-day period, the State determines that a stack test or a sample analysis is required to determine or confirm the violation, the clock does not start until the date of receipt of the stack test or sample analysis report.
 - 2. Any serious problems occurring earlier in the process would be identified and addressed in the National Air Audit System process rather than under these timelines.
- B. By day 45, the source should be notified of the violation and its need to remedy it by the State in writing or in a documented conversation (in any form the State feels is appropriate).
- C. By day 120, the source shall either be in compliance, on a legally-enforceable expeditious State administrative or judicial order, be subject to a referral to

the State attorney general or for a State adjudicatory enforcement hearing, or be subject to a proposed SIP revision which has at least been scheduled for a State hearing and which EPA staff-level review shows is likely to be approved. For cases where penalties are required (see IV below), penalties must also be addressed as part of the State action if it is to be sufficient to obviate further EPA action.

- D. If a schedule is established, the State will monitor compliance with that schedule and report on progress in accordance with established reporting requirements. If a referral is made, EPA will continue to monitor the progress of the case to and after filing. If a SIP revision is initiated, EPA will monitor the progress of the revision through the State administrative process. If a case or SIP revision becomes unduly delayed, EPA will discuss this with the State and may choose to initiate a parallel Federal action. No formal timelines are being established for this stage of the enforcement process, however.
- E. If none of the actions specified in C. have occurred by day 120, EPA will discuss with the State the status of the State's actions and its expectations. If discussions with the State suggest that the State is close to resolving the violation or that further deferral is otherwise appropriate, EPA will continue to defer to enable the State to complete its action. If EPA determines that further deferral is not justified, it will proceed with its own action at this point.
- F. When EPA takes the lead in a case, it will act to get the source in compliance, on a schedule, or subject to a Section 120 action or judicial referral within 120 days of its assumption of the lead. EPA will encourage continued State participation even where EPA takes the lead. The possibility of a joint action should be considered as an alternative to a unilateral EPA action where feasible.

III. Issuance of NOV's by EPA

- A. At day 90, EPA (after consultation with the State on the progress of the case to date) may take one of the following actions as circumstances dictate:
 - (a) Initiate case development activities through an inspection or issuance of a Section 114 letter. (This will be less likely to be

required if the State provides sufficient documentation to support an NOV, as provided in II.C.)

- (b) advise the source that EPA will issue an NOV in 30 days if the source does not reach an acceptable resolution with the State before then. (This should be used only where such an action by EPA is likely to be of significant value in prompting the source to reach an acceptable agreement with the State).
 - (c) issue the NOV, if requested by the State or if it is clear that a resolution will not be reached by the State by day 120 and that the environmental significance of the source warrants EPA action at this point.
- B. EPA will routinely issue NOVs, if not already issued, on (or shortly after) day 120 if the violations are still unresolved at that point. This is not intended as a criticism of the State action but only as expression of EPA concern to reinforce State efforts and as a necessary legal prerequisite to further EPA action. (NSPS sources will receive letters of violation rather than NOVs).
- C. Any NOV issued on day 120 will be issued only after consultation with the State. If there is some particularly compelling reason why the NOV should not be issued to a source at day 120, EPA will defer its issuance but this is not expected to be the case in the vast majority of cases. EPA will rely wherever possible on information provided by the State according to mutually-agreed upon procedures.
- D. In addition, EPA may immediately issue an NOV to any source subject to this guidance where it finds the violation rather than the State. (This would not apply to violations discovered in joint inspections.) However, prior to a decision on issuance of the NOV, EPA will discuss with the State the circumstances of the violation and ascertain the reason why the violation had not been reported by the State. EPA will also resolve in consultation with the State who will take the lead for the source and the nature and timing of follow-up action.

- E. Any NOV issued in a case where the State still has the lead will indicate that EPA is still looking to the State to resolve the matter and further EPA action will be required only in the absence of an acceptable, prompt resolution by the State.
- F. EPA will transmit a copy of all NOV's it issues to the State in whose jurisdiction the source is located. If the violation clearly impacts upon the air quality of an adjacent State, EPA will transmit of a copy of the NOV to the State as well.

IV. Penalties

A cash penalty of sufficient magnitude appropriate to the violation is required as an element of the resolution of the following classes of violations. If the penalty is not obtained by the State, an EPA action will be brought. If the State believes it can obtain a compliance schedule but not the penalty, a joint action could be appropriate.

The classes of violations subject to this guidance for which an appropriate cash penalty is required are:

- (a) Class A SIP violators in nonattainment areas in violation for the pollutant for which the area is nonattainment unless on an EPA-approved DCO or subject to an approvable SIP revision;
- (b) Sources which violate Part D, PSD, and NSPS requirements after the date the source was required to demonstrate compliance. (This would not apply during periods which the regulations or permit specifically provide for "debugging" prior to demonstration of compliance, such as the 180-day start-up period for NSPS sources provided for in 40 CFR Section 60.8);
- (c) Violators of NESHAPs requirements;
- (d) Sources which violate State or Federal administrative or judicial schedules, thus requiring an extension of the final compliance date;
- (e) Violators which the State or EPA determines are repeat violators.

This requirement would not be applicable to de minimis violations or violations arising from force majeure circumstances.

V. Consultation and Data Transfer

- A. EPA and States would initiate or continue at least monthly informal consultations to discuss compliance efforts. During these discussions, information exchange relative to obtaining compliance and penalties would occur. This exchange would include at least the following items.
- (a) The State would identify any newly-found violators subject to this guidance.
 - (b) The State would identify sources notified of noncompliance during the month consistent with Section II.B.
 - (c) The State would identify violators where action had been taken, consistent with Section II.C., including penalties where required by Section IV.
 - (d) The State would discuss the status of other enforcement actions pending or in progress if requested by EPA.
 - (e) EPA would identify sources for which it had completed action and provide the status for other sources where action is pending or in progress.
 - (f) EPA would identify any sources it had found in violation and confer with the State in accordance with III.D.
- B. The CDS would be updated by EPA and/or the State on a monthly basis to reflect:
- (a) Compliance status changes for newly-identified violators which are in violation on the last day of the month prior to the consultation and which were (or are expected to be) in that status for 7 days or more.
 - (b) Sources notified of noncompliance.
 - (c) Sources with completed enforcement actions, including any schedules and incremental dates for returning to compliance.
 - (d) Sources found to be in compliance with final limits.

- C. Inspection results other than those affected by the above will be provided in accordance with current practices and EPA accountability system requirements.
- D. EPA and the State will share inspection results and monitoring reports for use in enforcement proceedings to the extent practicable. State personnel should be encouraged to provide evidence, including testimony, for Federal proceedings. Federal personnel should similarly support State enforcement proceedings.

————— IMPORTANT NOTES —————

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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APR 25 1991

OFFICE OF ENFORCEMENT

MEMORANDUM

Subject: Procedure for Raising the Question of a Possible Criminal Violation in the Context of a Civil Referral from a Regional Office

From: Michael S. Alushin *M. S. Alushin*
Associate Enforcement Counsel
For Air

To: Air Enforcement Division Attorneys

This procedure is intended to give AED attorneys guidance on how to proceed with a civil referral involving a possible criminal violation. The current parallel proceedings policy does not address this issue. That policy assumes that the regional office has already made a determination that there is a criminal violation in a case. Balancing the need to have a strong criminal enforcement program with the desire to avoid prematurely raising the issue of a possible criminal violation with anyone outside the Agency, AED attorneys should use informal inquiries and discussions to resolve these questions quickly.

New Criminal Acts

Since the Clean Air Act Amendments greatly expand criminal enforcement authorities, an AED staff attorney is now more likely to review civil referrals where the violator's actions may be subject to the criminal provisions of the Act. In addition to the criminal penalties which were found in section 113(c) prior to the Amendments, AED attorneys should be aware that the following acts can result in criminal penalties: knowing omissions of material information; knowing alteration, concealment, or failure to file or maintain documents necessary for compliance; knowing tampering with or failure to install necessary monitoring devices; knowing failure to pay any fee required under Titles I, III, IV, V, or VI; and knowing or negligent releases of hazardous air pollutants which cause imminent danger of death or serious bodily injury to persons.

6/28/91
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New Affirmative Defenses

Furthermore, the Act creates new affirmative defenses to criminal penalties which are only available to certain defendants. Section 113(h) states that for section 113(c)(4), "except in the case of knowing and willful violations... 'person' shall not include an employee who is carrying out his normal activities and who is not a part of senior management personnel or a corporate officer." For sections 113(c)(1), (2), (3), and (5), "except in the case of knowing and willful violations... 'person' shall not include an employee who is carrying out his normal activities and who is acting under orders from the employer." Consequently, when dealing with a fact situation which involves an employee who fits into one of these exceptions, the attorney must not only look for a knowing violation, but must also look for facts which would prevent the employee from making a defense under one of these sections. Further guidance regarding the meaning of "willful" can be found in a February 26, 1991 memo from Richard W. Emory, Jr. entitled, "New Criminal Enforcement Provisions of Clean Air Act Reauthorization of 1990."

Spotting a Criminal Issue in a Civil Referral

In the course of reviewing a civil referral from a Regional Office, an AED attorney may conclude that a criminal violation may have occurred in the case and that criminal enforcement action should be considered. Indications of a possible criminal violation include conflicting data, conflicting stories, unsubstantiated data, deliberate actions, and claims of ignorance about legal requirements where there are records displaying knowledge. She should not send a memo in response to the civil referral until the question of whether a criminal violation exists is resolved. If the AED or OE deadline for responding to the referral is in danger of passing, due to following the procedures described below, an extension of that deadline should be sought from the appropriate authority.

Procedure for Exploring a Criminal Issue

The following steps should be taken:

1. The attorney should speak with her branch chief or the AEC about the possible criminal violation.
2. If the branch chief or the AEC agrees that there may be a criminal violation, then the AED attorney should make informal contact with the ORC staff attorney assigned to the case to discuss the possible criminal violation.

a. The ORC staff attorney may not have considered the possibility of a criminal violation. If she did not, the AED attorney should propose that the ORC staff attorney review the case and discuss it with the Regional Criminal Enforcement Counsel (RCEC).

b. If the ORC staff attorney had considered the possibility of a criminal violation, but had decided not to pursue criminal enforcement, the AED attorney should discuss with her the reasoning behind the decision. There may be facts in the case of which the AED attorney is not aware which indicate a weakness in the criminal case. If the AED attorney agrees with the ORC staff attorney's analysis, then the AED attorney should write a memo to the file indicating that the matter was discussed and how it was resolved.

3. If, after discussing the matter with the ORC staff attorney, the AED attorney concludes that there may be a criminal violation, the AED attorney should suggest to the ORC staff attorney that the issue be discussed with the RCEC if the matter has not been discussed previously.

4. The AED attorney should discuss the matter with the Director of the Criminal Enforcement Counsel Division (CECD) or a member of his staff. The AED attorney should ask CECD to limit its consideration of the matter to a brief period of time (e.g., seven days). If after discussions with the ORC staff attorney and CECD, it is concluded that requesting a criminal investigation by the Criminal Investigation Division (CID) is not appropriate, the AED attorney should prepare a memo to the file indicating that the matter was raised with the appropriate contacts and concluded.

5. If, after discussions with the CECD staff, the AED attorney concludes that there is a possible criminal violation, she should inform her branch chief and the AEC. The branch chief and the AEC will informally contact the Regional Counsel and inform her that CECD will be considering the possibility of criminal enforcement in the matter. The CECD will consult with the RCEC and CID's Special Agent-in-Charge in reviewing the case. If a review of the matter results in a decision that criminal enforcement is not appropriate, then the civil referral should be resumed. The AEC will notify DOJ informally that EPA has considered the possibility of criminal enforcement and has concluded that sufficient grounds for a criminal referral do not exist.

6. If, after a brief review, CECD decides to explore the possibility of criminal enforcement in the matter, AED should issue a memo to the Regional Counsel in response to the civil

referral indicating that the case will be held pending a determination by CECD that a criminal violation has occurred.

Parallel Proceedings

If the Office of Criminal Enforcement decides to go forward with and develop a criminal case, then AED should return the civil case referral to the Regional Counsel to be held until the criminal action is resolved. At that time, the Regional Counsel may wish to prepare a memo requesting that parallel proceedings be initiated pursuant to a June 15, 1989 memo entitled, "Procedures for Requesting and Obtaining Approval of Parallel Proceedings" and a June 21, 1989 memo entitled, "Guidelines on Investigative Procedures for Parallel Proceedings." Both memos were amended by a memo dated July 18, 1990 entitled, "Supplement to Parallel Proceedings Guidance and Procedures for Requesting and Obtaining Approval of Parallel Proceedings."

Administrative Orders

If an administrative order needs to be issued at any time in this process to stop a continuing environmental injury, then the order may be issued. The fact that a criminal enforcement action is possible should not affect the issuance of such an order. The Agency's first priority is to stop a continuing environmental injury regardless of whether a civil or criminal enforcement action will be pursued.

If you have questions about these procedures, please contact Rosemarie Kelley, who is our division's liaison to the criminal enforcement program, at FTS 475-7090.

cc: Regional Counsels
Regions I-X

Scott C. Fulton
Director of Civil Enforcement

Richard W. Emory, Jr., Acting Director
Office of Criminal Enforcement Counsel

Associate Enforcement Counsels
Office of Enforcement

B. Section 110: State Implementation Plans

1. Energy Emergency Task Force Implementation of Section 110(f) of the Clean Air Act 03/06/79
2. Supplemental Guidance Regarding Implementation of Section 110(f) of the Clean Air Act 06/19/79
3. Alternate Procedure for Section 110(f) Relief in Localized, Short Term Energy Emergencies 01/10/80
4. Clarification of Requirements for Inclusion of CEM Provisions in SIPs 05/09/80
5. Policy on Excess Emissions During Startup, Shutdown, Maintenance and Malfunctions
-- clarifies memorandum of same title dated 09/28/82 02/15/83
6. Source Specific SIP Revisions 07/29/83
7. Policy on SIP Revisions Requesting Compliance Date Extensions for VOC Sources 08/07/86
8. Review of State Implementation Plans and Revisions for Enforceability and Legal Sufficiency 09/23/87
Handwritten: Addition to add this -- see Table of Contents
12. Revised Guidance on Enforcement of State Implementation Plan Violations involving Proposed SIP Revisions 08/29/89
Handwritten: minimum 2/5/90
9. Guidance on Addressing Capture Efficiency in Enforcing VOC SIP Regulations 02/15/90
11. Opinion of the General Counsel on Discretionary Action Under Section 110(m) of the CAA 12/06/93

Energy Emergency Task Force Implementation
of Section 110(f) of the Clean Air Act
(03/06/79)

File at Part B, Document #1



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

March 6, 1979

SUBJECT: Energy Emergency Task Force; Implementation of
Section 110(f) of the Clean Air Act
—ACTION MEMORANDUM

FROM: Assistant Administrator for Enforcement *Maria Dunn*
Assistant Administrator for Air, Noise
and Radiation *(see signature below)*
TO: The Administrator

Summarized below is background information and proposed regional guidance on responding to an energy emergency under Section 110(f). We are also initiating development of an emergency plan and implementation guidance (as appropriate) to minimize adverse environmental effects which could result from a gasoline shortage. We will forward the gasoline emergency plan to you in the future.

I. DOE/EPA Working Relations

The Department of Energy (DOE) has established an Energy Emergency Center to coordinate the federal government's response to crisis situations resulting from energy emergencies. Although the center was initiated under the impetus of the UMW strike, it would be the coordinating agent in any energy emergency. EPA has also established an ad hoc Energy Emergency Task Force to coordinate EPA's response to a crisis. EPA's Offices of Enforcement, Air, Noise and Radiation, General Counsel, and Federal Activities are represented on the task force. EPA's contact with DOE's Energy Emergency Center is Mrs. Yvonne Allen, Director of the Center (202-252-5155). DOE's contact with EPA's Energy Emergency Task Force is Ms. Martha Prothro (alternate: Mr. Weldon Blake) of the Division of Stationary Source Enforcement (DSSE - FTS 755-2523).

Ms. Allen has advised that coal supply information (quantity, quality, and number of days of fuel supply) will be available from DOE: (1) weekly for utilities on a State-wide basis (approximately 10-day-old data); (2) daily for specific utilities that DOE has determined to have a critically short coal supply; and (3) weekly for industrial coal burners on a State-wide basis. In addition, DOE can advise EPA of State actions to conserve and minimize consumption of the fuel in short supply and federal actions to provide for interconnections to assure that electrical power will be transferred to areas most in need. Although this information is specific for coal, this guidance is to be used in any energy emergency. Coal availability information would be useful for sources presently burning oil or gas but which have coal burning capability in the event of a shortage of oil or gas.

DOE has established a formal day-to-day contact in Jack Watson's office during energy emergencies in order to expedite the flow of information between EPA, DOE, and the White House. DOE and EPA have also agreed to maintain daily contact during such emergencies.

II. Petitions for Energy Emergency Declarations under Section 110(f) of the Clean Air Act

Section 110(f) provides that emergency SIP suspensions may be granted in accordance with the following:

- (1) The owner or operator of fuel burning stationary source applies to the state for relief.
- (2) The Governor gives notice and opportunity for public hearing on the proposed petition.
- (3) The Governor finds that:
 - (a) an emergency exists in the vicinity of the source involving high levels of unemployment or loss of necessary energy supplies for residential dwellings; and
 - (b) such unemployment or loss can be totally or partially alleviated by an emergency suspension of State Implementation Plan requirements applicable to that source.

- (4) The Governor petitions the President to declare that a national or regional energy emergency exists of such severity that:
 - (a) a temporary suspension of any part of the applicable implementation plan may be necessary; and
 - (b) other means of responding to the energy emergency may be inadequate.
- (5) The President determines that a national or regional energy emergency exists. (This authority may not be redelegated.)
- (6) The Governor may issue an emergency suspension to the source which may take effect immediately. Not more than one such suspension may be issued to a source based on the same set of circumstances or on the basis of the same emergency. Suspensions are limited in duration by any time limit the President places on his determination, and in any case may not exceed four months.
- (7) EPA Administrator may review the Governor's suspension and disapprove it if he determines that it does not satisfy the criteria set forth in (3) above. If the EPA Administrator issues a disapproval order, he will specify therein the date on which the Governor's suspension shall no longer be effective.
- (8) This procedure does not apply to a plan revision promulgated by the Administrator pursuant to Section 110(c) (such as for sulfur oxides in Ohio). The President, however, may grant up to a four month suspension of a State Implementation Plan promulgated by the Administrator if he makes the findings in (3) and (4) above.

Whenever a Governor petitions the President for a declaration of an energy emergency under Section 110(f), we suggest that EPA make the following recommendations:

A. Conservation measures:

It is essential that emphasis be placed on the need for energy conservation through means other than turning off pollution controls, which could involve violations of health-protective regulations. DOE has determined that there is no federal authority to mandate conservation measures and only a few States have such authority. Since Section 110(f) includes a provision for consideration of the adequacy of "other means" of responding to the emergency (item #4(b) above), EPA should recommend to the President that his declaration of an energy emergency for purposes of Section 110(f) be conditioned on (1) the Governor's requiring that sources covered by suspensions demonstrate they have implemented or will implement all possible conservation measures, and (2) where the Governor can mandate conservation measures, that he do so in addition to granting relief under Section 110(f). If he cannot mandate conservation measures he would be required to ask for voluntary conservation measures in the areas affected. If conservation measures would be adequate by themselves, no declaration involving 110(f) would be appropriate.

B. Specific reference to Section 303 emergency powers:

EPA should recommend that the President specifically mention the continued responsibility of the EPA to take action under Section 303 of the Clean Air Act where air pollution may result in an imminent and substantial endangerment to human health. Although Section 303 would not be suspended in any event, a specific reference will help to ensure that States and sources are on notice of EPA's intention to monitor the potentially severe health impacts of any increases in emissions resulting from SIP suspension.

C. Reference to possible case by case disapproval by EPA:

This is necessary to impress upon States the need to make case by case findings as required by Section 110(f). If this is not done at the State level, EPA should disapprove wherever it determines that the Governor could not have made the necessary findings for the source. (For example, suspensions of compliance schedules would generally be inappropriate since they would be unlikely to alleviate any unemployment or residential energy loss.)

D. Limitations on time and area covered by emergency declaration:

EPA should recommend that emergency declarations be as precise as possible, especially as to the area affected, to allow both an adequate response to true emergencies and an adequate opportunity to reevaluate the situation as events develop.

III. EPA Response to SIP Suspensions Issued by Governors under Section 110(f) of the Clean Air Act

A. Public hearings:

We strongly urge that, whenever possible, the Regional Office actively participate in any public hearing held under 110(f). EPA's participation will be useful for two reasons. First, it will help to ensure that the public health impacts of alternative mitigative measures will be considered in the decision making process. Second, it will give us the opportunity to establish on the record early in the process that blanket SIP suspensions throughout a State may not be acceptable and that the findings required by Section 110(f)(2)(A) and (B) of the Act must be made for each source to be covered by the suspension. Therefore, Regional Offices should testify generally that EPA recognizes and will cooperate in attempting to ease the impact of fuel shortages but that, because the health problems which could result from suspending air quality standards are a grave concern, suspensions should not be granted lightly. The spokesperson should also advise that temporary emergency suspensions should be issued on a source-specific basis and only where the findings required by Section 110(f)(2)(A) and (B) have been made.

The purpose of the public hearing required in Section 110(f) is, in part, to provide a factual record for the Governor and EPA to use in determining whether temporary suspension of portions of the implementation plan are justified. As a minimum, the public hearing should cover the following:

- (1) the nature and extent of the energy emergency;
- (2) current and projected unemployment impacts associated with the energy emergency;

- (3) current and projected loss of necessary energy supplies for residential use associated with the energy emergency;
- (4) alternative strategies for reducing the adverse impacts of the energy emergency and the consequences of these strategies on unemployment and on residential energy supply;
- (5) amount of energy savings expected to result from temporary suspension of portions of the implementation plan;
- (6) to the extent possible, pollutant emission levels both before and after the proposed temporary suspension of portions of the implementation plan; and
- (7) to the extent possible, preliminary assessment of the air quality and health effect impacts of the proposed temporary suspension of portions of the implementation plan.

Information provided on items (5) through (7) should, whenever possible, include source by source data for those sources which, because of their location, the nature and quantity of their emissions, the density of population in the area, or other reasons, we might reasonably anticipate would have an unacceptably adverse impact on public health should they be included under a temporary suspension determination.

Because of the emergency nature of this process, it is unlikely that the public will be given much notice (probably less than one week) prior to a hearing. Accordingly, it will be useful for those Regions likely to be affected to begin to prepare a position on SIP suspensions on a priority basis for each State within the Region. Efforts should begin immediately to evaluate possible adverse air quality impacts within States expected to initiate the Section 110(f) process as soon as necessary. Clearly, any air quality analyses done as part of this effort will be cursory and can only be intended to begin a screening process. Unless recent atmospheric dispersion modeling analyses for particular areas or sources has been done for other reasons, simple rollback (rollforward) estimates will have to suffice

for projecting air quality impacts. Areas should be screened on the basis of recent ambient monitoring data and further on the basis of alert episode days. Source impacts should be screened on the basis of size, degree of reliance on affected fuel, emission density, stack heights, etc.

The general purpose of this analysis is to identify those specific areas or particular sources where a suspension of the SIP would be most likely to have severe air quality impacts and resultant severe public health effects. It would be most desirable to coordinate this effort to the maximum extent possible with the appropriate State agency since the State will make the initial decision on the case-by-case SIP suspensions.

8. Regional Responsibilities Following SIP Suspension Decision:

The Regional Office should maintain a current listing of all individual sources that are granted a suspension on a day-to-day basis. Each source granted a suspension should be contacted by the Regional Office to determine the specific course of action which the source intends to take in response to the suspension. Such information will facilitate a better assessment of the potential air quality impacts that can be expected.

The Regional Office should ensure that every effort is made to process at least daily data from all available ambient monitoring networks in and around those areas where SIP suspensions have been granted. To the extent that resource constraints limit this effort, highest priority should be placed on those areas that are most likely to reach episode levels based upon historical ambient air quality and the number, concentration, and size of sources granted SIP suspensions in the area. The Regional Office should notify the Division of Stationary Source Enforcement (DSSE) and the Office of Air Quality Planning and Standards (OAQPS) when air pollution concentrations in areas affected by SIP suspensions are exceeding dangerous levels (i.e., episode alert levels and higher). It is likely that timely air quality monitoring data will provide the single most important basis for supporting a determination by the Administrator to take an emergency action under Section 303 of the Clean Air Act or to recommend that the President rescind or not extend his emergency declarations for a specific area.

The EPA Administrator may disapprove a suspension issued by a Governor only in those limited situations in which the suspension does not meet the requirements of Section 110(f)(2)(A) and (B) of the Clean Air Act (i.e., where high levels of unemployment and loss of necessary energy supplies for residential dwellings do not exist or the unemployment or loss cannot be totally or partially alleviated by the SIP suspension). In order to assure that suspensions apply only to sources experiencing an emergency, EPA should act quickly to disapprove suspensions covering sources for which the necessary findings cannot be made. The authority to disapprove suspensions should be delegated to the Regional Administrators, with EPA headquarters concurrence, in order to assure expedited action. (A delegation of Section 110(f)(3) authority is included in the attached memorandum to the Regional Administrators for your signature.)

Regional Offices should give high priority to reviewing any actual suspension issued by Governors to assure that they are consistent with the criteria set forth in Section 110(f)(2)(A) and (B). Reviews should focus on sources in those areas (and, where known, major sources) for which DOE has determined, based on available supplies and possible interconnections, that the emergency is less critical. DSSZ will keep the Regional Offices informed of DOE's determinations and will request DOE determinations as necessary to enable Regional Offices to set proper priorities for reviews of SIP suspensions.

The memorandum attached for your signature directs each Regional Administrator to designate a contact for energy emergency information. DSSZ's Regional Programs Section will contact Regional Office designees each day to obtain information for inclusion in a daily status chart. DSSZ will be primarily responsible for contacting the Regional Offices to request specific information, for answering any Regional questions, and for receiving and disseminating necessary data to appropriate Regional and headquarters Offices.

IV. EPA Response to Inquiries from States and Sources

Generally, inquiries can be expected to fall within the categories listed below. Suggested Regional Office responses are indicated.

A. Source inquiries about possible suspension of State promulgated implementation plan:

Response: Only the Governor can suspend such a SIP. Source may petition Governor to petition the President for a §110(f) emergency declaration. EPA will not concur in relaxation of environmental regulations prior to a declaration under §110(f).

B. Source inquiries about possible suspension of federally promulgated SIP:

Response: The President has not delegated his authority to suspend such a SIP. Sources may direct petitions to the President but should send copies to the Administrator and Regional Administrator to assure quick response. Source must present information to allow the President to determine: (1) that an energy emergency exists in the vicinity of the source of such severity that a temporary suspension of any part of the SIP may be necessary and other means of responding may be inadequate; (2) that there exists in the vicinity of such source a temporary energy emergency involving high levels of unemployment or loss of necessary energy supplies for residential dwellings; and (3) that such loss or unemployment can be totally or partially alleviated by a SIP suspension. (DSSE should be notified immediately of any expected petitions for suspension of federally promulgated SIP's.)

C. Source or State inquiries about possible suspension of non-SIP federal air pollution control requirements (e.g., New Source Performance Standards, interim requirements in federal orders or consent decrees, etc.):

Response: There is no statutory authority for emergency suspension of non-SIP requirements, since §110(f) relates only to SIP's. If, however, a determination of an emergency has been made under §110(f) relative to SIP's, EPA will exercise enforcement discretion on a case-by-case basis in dealing with non-SIP situations. Where the findings necessary for a SIP suspension could not have been made in a specific case, EPA will enforce the applicable requirements and will seek appropriate penalties. Where those findings could be made for a source subject to non-SIP federal requirements, EPA will generally refrain from enforcing or seeking penalties based on a source's noncompliance where

all other possible steps are being taken to comply and where violation results from efforts to minimize the impacts of an emergency on high levels of unemployment or loss of necessary energy supplies to residences. A commitment not to enforce may be made only in writing to a specific source and only with the concurrence of the Division of Stationary Source Enforcement. In no event may a source be exempt from possible action under Section 303 of the Clean Air Act. It is unlikely that any relaxation of incremental compliance schedules will be appropriate.

D. Source or State inquiries about possible suspension of federal requirements for water pollution control:

Response: If, based on the provisions of Section 110(f) of the Clean Air Act, a proclamation is made and petitions for relief from NPDES requirements are received, the Regional Office should immediately contact the Office of Water Enforcement for guidance. The following conditions for temporary modification of individual discharge permits will generally apply:

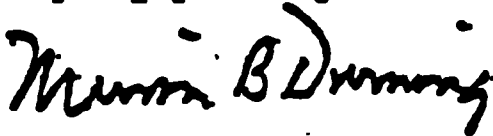
1. On a case-by-case basis, EPA will review written applications for relief from individual permit conditions to determine:
 - a. the specific permit conditions which the discharger wishes to have amended temporarily;
 - b. the specific energy savings from each suspension of water treatment activity;
 - c. additional steps the permittee is taking to reduce total plant energy consumption;
 - d. the anticipated environmental damage which will result from the cessation of all or portions of the treatment process;
 - e. other area wide energy conservation measures.
2. Except where a balancing test would dictate a contrary result, written requests will be disapproved if they petition for relief from the following:

- a. a requirement which, if suspended, would result in short-term suspension of current treatment activity and which would result in long-term environmental damage;
- b. a requirement limiting the discharge of toxic substances (NRDC, etc.);
- c. the construction steps which are in their compliance schedules;
- d. disinfection requirements where water is used for swimming or food processing, etc.

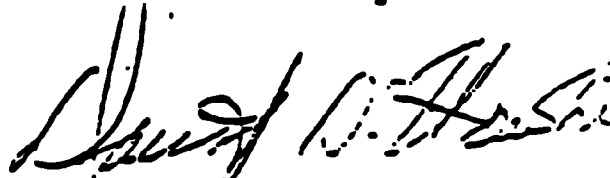
In all cases, relief may be granted using prosecutorial discretion and the Regions will issue legally enforceable documents which require full compliance at the end of the emergency period. These documents will also require increased levels of monitoring and reporting in order to safeguard the environment.

V. Recommendation

We recommend that you sign the attached memorandum to the Regional Administrators which emphasizes that EPA's response to an emergency must be handled as the highest Agency priority.



Marvin B. Durning



David G. Hawkins

Attachments

cc: DOE, attn: Ms. Yvonne Allen

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GM-110(f)-79-3-6-001 X

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

March 6, 1979

THE ADMINISTRATOR

MEMORANDUM

TO: Regional Administrators, Regions I-X

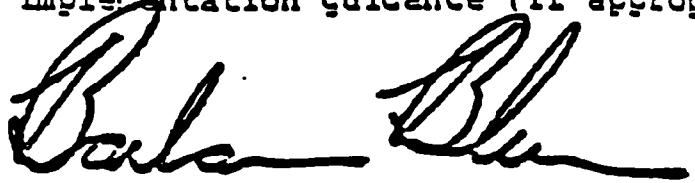
SUBJECT: Response to Energy Emergency; Implementation of
Section 110(f) of the Clean Air Act, as Amended

The Regional Offices should place highest priority on responding to any energy emergency which may arise and implementing EPA's responsibilities under Section 110(f) of the Clean Air Act. Each Regional Administrator should take action to implement the guidance and recommendations set forth in the attached memorandum to me from Mr. Durning and Mr. Hawkins.

The Clean Air Act provides that I may disapprove any SIP suspension which I determine does not comply with Section 110(f)(2)(A) and (B) of the Clean Air Act. To assure that disapprovals of inappropriate suspensions are expedited, I hereby delegate to the Regional Administrators my authority under Section 110(f)(3) to disapprove suspensions issued by Governors. This authority may be exercised by the Regional Administrators only with the prior concurrence of the Assistant Administrator for Enforcement and the Assistant Administrator for Air, Noise and Radiation. Concurrence from the Office of Enforcement and the Office of Air, Noise and Radiation should be requested and will be given by telephone through the designated EPA headquarters contact. I have designated Ms. Martha Prothro (FTS 755-2523) of the Division of Stationary Source Enforcement as the EPA Headquarters contact on all Section 110(f) matters. Ms. Prothro's alternate is Mr. Weldon Blake (FTS 755-2542). Each Regional Administrator should designate a regional contact and alternate and the contact should call Ms. Prothro as soon as possible.

-2-

In addition to this energy emergency plan to implement Section 110(f), we are initiating the development of an emergency plan to minimize adverse environmental effects which could result from a gasoline shortage. I will forward the gasoline plan with implementation guidance (if appropriate) in the future.

A handwritten signature in dark ink, appearing to read 'Douglas M. Costle', written in a cursive style.

Douglas M. Costle

Attachment

cc: Department of Energy



GM-110A-79-7-2-002
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

JUL 2 1979

MEMORANDUM

TO: Regional Administrators, Regions I-X

SUBJECT: Supplement to the Memorandum of March 6, 1979, Regarding
Implementation of Section 110(f) of the Clean Air Act

On March 6, 1979, I sent to the Regional Administrators guidance on implementing Section 110(f) of the Clean Air Act. Since that time headquarter's staff has clarified the informational requirements for adequately addressing Section 110(f) issues and has also developed a policy concerning the use of price differentials between low and high sulfur fuel oils in Section 110(f) proceedings. Each Regional Administrator should take action to implement the supplemental guidance and recommendations set forth in the attached memorandum to me from Mr. Durning and Mr. Hawkins.

I have designated Mr. Paul Stolpman (phone: 426-2482) as the headquarters contact on the analysis needed to support all 110(f) actions. Mr. Stolpman's alternate is Mr. George Sugiyama (phone: 426-2482). Action on the 110(f) applications remains as set forth in previous guidance.

Barbara Blum
for Douglas M. Costle

Attachment

**Supplemental Guidance Regarding Implementation
of Section 110(f) of the Clean Air Act
(06/19/79)**

File at Part B, Document #2



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 19 1979

THE ADMINISTRATOR

SUBJECT: Supplemental Guidance Regarding Implementation of Section 110(f)
of the Clean Air Act - ACTION MEMORANDUM

FROM : Assistant Administrator for Air, Noise, and Radiation *DA*
Assistant Administrator for Enforcement

TO : The Administrator

Regional guidance on responding to an energy emergency under Section 110(f) was issued on March 6, 1979. Since that time the President has declared a regional energy emergency in Florida; Connecticut and New York have held hearings on low sulfur fuel oil availability; and the President has instructed EPA to use full authority to take price differentials into account in making recommendations on Section 110(f) waiver requests. Based on our experience subsequent to the Section 110(f) regional guidance we now propose the following supplemental guidance detailing information necessary for determining the existence of an energy emergency and policy guidance on the extent to which price differentials are to be incorporated in a waiver recommendation.

I. Policy on Price Differentials

The President, in his April 5, 1979, energy address, directed the Administrator to "consider unusually large increases in the price differential between complying and non-complying fuels as a basis for recommending approval of state suspension requests" and to "use his full authority to take into account price differentials and to provide the President with information on price differential increases when making recommendations to him on such requests." This directive does not imply that states must make a price differential case when petitioning for Section 110(f) waivers. It does allow the Administrator to consider price differentials whenever a state makes such a case.

On June 7, 1979, the State of New York held hearings on a request by a public utility for a Section 110(f) SIP suspension of the low sulfur fuel oil requirement. The issue before New York was not based on an actual unavailability of complying low sulfur fuel oil but was based on whether the high price of complying fuel oil relative to non-complying fuel oil was sufficient justification for a SIP suspension. EPA was requested by New York to provide policy guidance on this issue.

Price differentials between complying and non-complying fuel oils may provide a sufficient justification for a SIP suspension only when such differentials actually cause (or are anticipated to cause) the effects of an energy emergency listed in Section 110(f)(2), i.e., high levels of unemployment or a loss of necessary energy supplies for residential dwellings and such effects could be totally or partially alleviated by an emergency suspension.

Whenever it appears that price differentials may become part of the basis or the basis of a Governor's petition to the President for a declaration of an energy emergency, Regional Administrators should make every effort to assure that the state develops an adequate record on the impact of price differentials. Recommendations to the President concerning petitions for an energy emergency shall not be based on price differentials in the absence of an adequate record establishing the impact of such price differentials. Further, in exercising the Section 110(f)(3) disapproval authority EPA shall examine the price differential impact of a SIP suspension to determine its continued validity and act accordingly. During the period of a suspension, price differentials and the impacts of price differentials will be monitored by EPA to determine the continued validity of a price differential basis for a SIP suspension.

II. Information Necessary to Document the Existence of An Energy Emergency

The following list of information needs is an expansion of those general items listed in paragraph III(A) on pages 5 and 6 of the March 6, 1979, regional guidance. As the record of any EPA decision or recommendation regarding a Section 110(f) waiver request will be primarily the state's record, a concerted effort should be made to assure that such record contains the following information as well as any available information on the issues listed in paragraph III(A). Although EPA should provide assistance in developing the state's record, the responsibility of providing this information rests with the state and the source.

1. Identities of affected or potentially affected parties, including;

- (a) parties claiming a shortage together with the basis of their claims,**
- (b) affected customers (ultimate users), and**
- (c) suppliers (potential or actual) to parties experiencing shortages or cutbacks.**

2. Information concerning the amount and duration of an expected shortage including:

- (a) monthly demand for two calendar quarters before and after a SIP suspension,**

(b) projected shortfall of conforming fuel for the period in item (a).

(c) any circumstances affecting a shortage, such as abnormal weather conditions

(d) unanticipated changes in supply, demand, or availability of transportation.

3. A summary of the current inventories of the various parties affected, including the following information:.

(a) by type and sulfur content

(b) storage capacity/blending capacity

(c) historical comparison of supplies/inventory over last 2 years

(d) desulfurization capacity and a historical summary of such capability, including any recent (3 year) changes in desulfurization capacity.

4. Information on alternative supplies of available conforming fuel and documentation of those steps taken to locate such fuels. An adequate documentation will include a list of all suppliers contacted (including date of contact and mode of contact), the response of each supplier contacted, copies of correspondence with the suppliers (including telephone logs), and any other memoranda, notes, or reports evidencing the availability or unavailability of fuel oil.

5. Information on the availability of other fuel supplies which though not conforming represent a minimal increase in sulfur levels (i.e., 1% sulfur content versus 0.3% sulfur content).

6. A summary of the contractual arrangements between various parties, suppliers and users and a description of the available options in the event of a fuel oil shortage.

7. What actions have been taken or considered to mitigate the environmental, energy, and employment impacts of the shortage situation or to conserve conforming fuel (mandatory or voluntary)? Examples of such measures may be conservation measures, voltage reductions, thermostat reductions, wheeling and the substitution of natural gas for oil. The amount of conforming fuel oil saved by each measure should be detailed.

8. Which facilities may have to close down as a result of the shortages? What is the potential impact on employment in the area?

9. Which facilities can convert to alternate fuels? What is the lead time necessary for these facilities to convert?

10. How will SIP suspensions alleviate the shortage?

- (a) what is the present SIP limitation on fuel use
- (b) what would the new requirement be if the SIP is suspended.
- (c) how much conforming fuel would be saved.
- (d) can anything within the existing SIP be done to wholly or partially alleviate the shortage.
- (e) What steps will the state undertake to mitigate environmental impacts.
- (f) can a fuel user blend conforming and non-conforming fuels to minimize any local environmental impact of using non-conforming fuels?

11. Which sources would violate NAAQS if the emissions limitations are suspended? What is the present attainment status in the affected areas?

With regard to a request for a 110(f) suspension based on price differentials the following additional information would be required:

1. A discussion of fuel prices, including:

- (a) a one year history of prices paid for conforming fuel, under contract or on the spot market.
- (b) the prices of non-conforming fuels by sulfur content.
- (c) the prices of any available alternative fuels the use of which would not require a suspension.

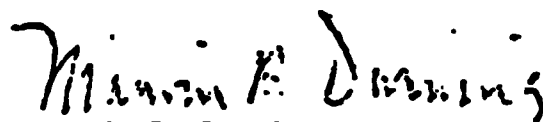
2. The impact of price differentials of complying fuels relative to non-complying fuels (at various sulfur levels) on unemployment (e.g., layoffs, plant closures) and residential energy supplies, including:

- (a) a examination of various sulfur content fuels and alternative fuels.
- (b) the mitigating effects of conservation measures and the substitution of natural gas for oil.

III. Recommendation

We recommend that you sign the attached memorandum to the Regional Administrators.


David G. Hawkins


Marvin B. Durning

**Alternate Procedure for Section 110(f) Relief
in Localized, Short Term Energy Emergencies
(01/10/80)**

File at Part B, Document #3



GM-110(f)-80-1-10-003 X
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

January 10, 1980

OFFICE OF ENFORCEMENT

MEMORANDUM

Subject: Alternate Procedure for Section 110(f)
Relief in Localized, Short Term Energy
Emergencies

110(f)

From: Acting Assistant Administrator for
Enforcement

Assistant Administrator for Air, Noise
and Radiation

To: Regional Administrators
Regions I-X

Recent discussions with various state environmental and energy personnel have focused our attention on the inappropriateness of our current Section 110(f) guidance on procedures for obtaining Presidential emergency declarations and subsequent suspension of State Implementation Plan requirements necessitated by short term, localized situations where no alternative action appears to be adequate (e.g., harbor disruptions, unanticipated distributor delivery delays). The Section 110(f) mechanism is the only manner in which the Clean Air Act permits suspension of State Implementation Plan requirements, with the attendant release from federal liability for their violation, under energy emergency circumstances. Some of our existing procedures for handling Section 110(f) requests have occasionally proved too cumbersome relative to the immediacy of these short-term, localized energy problems.

Our staffs, in coordination with several regional and State officials, have developed the following procedures which we believe mitigate the existing problems while complying with the intent of Section 110(f) for these limited emergency situations. National or regional energy emergencies which are ineligible for the expedited approach described

below, remain subject to earlier guidance of March 6, and July 2, 1979. (Copies of these memoranda, as well as a sample Presidential declaration for short term emergencies falling within the scope of this guidance, are attached for your convenience.)

Applicability of Expedited Procedures

Expedited procedures are available only where relief necessary as a result of the emergency is anticipated to last less than 30 days, and is limited to a localized problem due to unavailability of conforming fuel. This expedited procedure may not be used for 110(f) petitions based on unusually high price differentials between conforming and nonconforming fuels; these petitions must conform to earlier guidance. All other energy emergency situations (e.g., a regional problem anticipated to last 2 or 3 months) require literal compliance with the statutory procedures of Section 110(f).

EPA will recommend that any Presidential declaration granted under these expedited procedures expire, by its own terms, no later than 30 days from issuance, and permit suspensions of SIP requirements only for those sources (including distributors where applicable) affected by the unavailability of conforming fuel. These expedited procedures are generally inappropriate where gubernatorial suspensions across an entire state or industry category are necessary.

I. Procedures for Expedited Relief

A. State Notice and Opportunity for Hearing Prior to Petition

Due to the short reaction time and short possible effective period of any suspension, public notice and opportunity for a hearing prior to a petition, while strongly encouraged, are not required for EPA to recommend a Presidential declaration. Such hearings are held to consider both the existence and extent of the emergency and the impacts of any suspensions which may be granted should an energy

emergency be declared. Where no opportunity for a hearing was offered prior to the Governor's petition to the President, EPA will recommend that any declaration be conditioned on the requirement that such hearings being held within 10 days after the declaration, and that such a declaration expire by its own terms if a hearing is not held within that time.

Should the state later determine that the emergency situation will or is likely to last longer than the 30 days covered by the declaration, an additional hearing, prior to the Governor's request for an extension of the Presidential declaration, is required.

B. The Governor's Petition to the President and Supporting Documentation

Due to the short time period for 110(f) relief effectiveness under these expedited procedures, an extensive petition to the President from the Governor is not needed; however, a written or telegraphic request from the Governor for the declaration, based on consultation with both State energy and environmental personnel, is required. A prior telephone communication from State staff to the appropriate EPA Regional Office, explaining the circumstances of the emergency and the forthcoming request, will expedite the procedure. A brief statement of the basis for the request, including the approximate number and types of sources affected, the apparent cause of the emergency, efforts made to alleviate the situation through other means and why those efforts are insufficient, a summary of available information on possible unemployment and/or loss of necessary residential energy supplies, and (wherever possible) a discussion of potential air quality impacts of anticipated suspensions, should accompany the Governor's request. A brief discussion of alternate measures for alleviation of the difficulty without emission increases (e.g., load shifting, conversion) should be included. If the petition is made without prior notice and opportunity for a hearing, the request should indicate why such notice and hearings could not be held prior to the request.

II. Subsequent Documentation and Air Quality Considerations

Additional documentation, including that collected through the public hearing, should be submitted to EPA as soon as possible after the hearing. This documentation should include detailed information on the topics addressed briefly in the petition as well as any air quality information, such as monitoring data and records of emissions from facilities granted suspensions during the period of the declaration. In addition, where unavailability of conforming fuel is involved, written documentation of source/distributor efforts to obtain conforming fuel must be submitted.

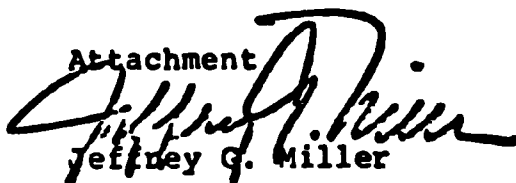
Many states have the capability of producing ambient air quality projections in a tight time frame, or have modeled sources and know the maximum allowable emissions which will protect air quality. States should be urged to perform any necessary air quality modeling and other environmental impact analyses before an energy emergency arises, in order to have this information quickly available.

III. EPA Involvement

EPA has two roles in the 110(f) process -- the statutory authority to disapprove gubernatorial suspensions and the responsibility for recommending action to the President on petitions for declarations of energy emergencies. To adequately perform its responsibilities, the Agency must maintain close communication with the state involved. The following communication patterns should be followed to assure expeditious EPA action:

1. Earliest possible telephone notification of the emergency should be made by the State to the EPA Regional office. The energy contact in the Regional office should immediately inform Jean Vernet of DSSE (FTS 755-2553) of this communication from the State, in order to expedite any response. Providing headquarters with names and telephone numbers of the involved State personnel (e.g., energy, environmental, and public utility commission staff) has proven to be extremely useful, especially where the immediacy of the situation requires speedy information gathering.

2. A copy of the petition to the President should be sent to the Administrator, Attention: Edward Reich, Director, Division of Stationary Source Enforcement, at the same time as it is submitted to the President. A copy of the petition and all supporting data should be sent to the EPA Regional Office. This will eliminate the delay involved in transmittal from the White House, and will permit EPA to quickly prepare a recommendation and draft a declaration for signature of the President.
3. The EPA Regional office should be given notice of any state hearing. EPA will attend and participate to the extent a state requests and the Agency is able. Copies of transcripts of all hearings should be sent to the EPA Regional office.
4. Copies of all gubernatorial suspensions of SIP requirements, together with any supporting materials, should be sent to the EPA Regional office.
5. Copies of all source/distributor submittals should be sent to the EPA Regional Office directly by the source/distributor, if possible or by the State.
6. The State environmental and energy offices and the EPA Regional Office should maintain close communication throughout the energy emergency period, to monitor the existing situation and hopefully to foresee any additional, longer term or broader problems.
7. The energy emergency contact in the Regional Office should maintain close communication with DSSE to facilitate any necessary headquarters actions on the emergency.

Attachment

Jeffrey G. Miller


David G. Hawkins

SAMPLE

MEMORANDUM FOR THE ADMINISTRATOR OF THE
ENVIRONMENTAL PROTECTION AGENCY

Based on a request submitted to me by the Governor of _____, I hereby declare that a regional energy emergency exists in the State of _____ of such severity that temporary suspension of certain air pollution control regulations which apply to _____ under the _____ Air Quality Implementation Plan may be necessary, and that other means of responding to the energy emergency may be inadequate. This determination shall expire (30 days from issuance), and is made upon condition that the necessary hearings be held within ten days. If hearings are not held, this determination will expire (ten days from issuance).

If, during the emergency, I find that a regional energy emergency no longer exists in _____, I will direct that this determination be rescinded, and that all suspension orders issued by the Governor be

terminated on the day of that rescission. Please continue to work with State officials to monitor carefully the situation in _____ and to inform me if the emergency should cease to exist. You will continue to retain full authority to disapprove temporary suspension of regulations in _____ and to exercise your emergency powers authority under Section 303 of the Clean Air Act, when and if necessary.

While my determination permits the temporary suspension of certain emission limiting requirements, I urge Governor _____ to exercise caution in granting these suspensions, in order to protect, to the fullest extent possible, the public health and welfare. (This determination shall be published in the Federal Register.)

**Clarification of Requirements for Inclusion
of CEM Provisions in SIPs
(05/09/80)**

File at Part B, Document #4

MEMORANDUM

MAY 9 1980

SUBJECT: Clarification of Requirements for Inclusion
of Continuous Emission Monitoring
Provisions in State Implementation Plans

FROM: Director, Division of Stationary Source
Enforcement

TO: Enforcement Division Directors,
Regions I-X

Air and Hazardous Materials Division Directors,
Regions I-X

During the course of a recent survey of state continuous emission monitoring (CEM) regulations for existing stationary sources, the following question arose concerning the applicability of 40 CFR Part 51, Appendix P, which requires CEM at four categories of existing sources (power plants, sulfuric acid plants, nitric acid plants, and fluid bed catalytic cracking unit catalyst regenerators at petroleum refineries):

Appendix P requires CEM at the four listed sources if they exceed certain size thresholds and, in the case of NOx CEM, power plants and nitric acid plants if they are located in areas designated nonattainment for nitrogen dioxide. If a state, due to the size thresholds, has no Appendix P sources, or if a state has no areas designated nonattainment for nitrogen dioxide, must the state nonetheless promulgate a CEM regulation pursuant to 40 CFR 51.19(e) in case a source exceeding the threshold is subsequently constructed in that state or in the event an area is later designated nonattainment for nitrogen dioxide?

The question arose because among the reasons some states have given for not having complete Appendix P regulations are that the sources in those states do not meet the size thresholds or that there are no areas in the states designated nonattainment for nitrogen dioxide.

It is our view that a state need not promulgate CEM regulations to apply to Appendix P sources not yet in existence in the state. Appendix P by its terms permits states, in their CEM regulations, to exempt from its coverage sources which would be subject to any NSPS requiring CEM. All four of the source

categories covered by Appendix P would, if new, be subject to NSPS continuous monitoring requirements. Should a source meeting the Appendix P size threshold be subsequently constructed in a state, it would be governed by the CEM provisions of the applicable NSPS. Coverage under Appendix P would therefore be unnecessary to assuring the continuous monitoring of that new source.

With regard to the absence within a state of areas designated nonattainment for nitrogen dioxide, a state need not require NOx monitoring under Appendix P for power plants or nitric acid plants where there are currently no nonattainment areas for nitrogen dioxide. A reading of Sections 2.1.3 and 2.2 of Appendix P reveals that the presence of a nonattainment area for nitrogen dioxide is so much a part of the description of the covered source categories that the absence of such an area would preclude existing power plants and nitric acid plants from Appendix P coverage for NOx monitoring. There being no covered sources for NOx monitoring, no regulations need be enacted to require such monitoring.

In order, however, to encourage states to assess their CEM regulations and to examine those sources covered by them, we will suggest to the working group presently involved in further developing the Agency's CEM requirements that 40 CFR 51.19(e) and Appendix P be amended to include a provision requiring a state to certify, in a manner similar to 40 CFR 60.23(h) for NSPS, that it has no existing sources of the type covered by the CEM requirements and therefore need not have complete Appendix P regulations. A procedure of this sort would enable the Agency to better monitor both source and state compliance with CEM regulations for existing sources.

If you have any questions on this matter, please feel free to contact Mark Silvermintz (FTS 755-2570) in this Division.

Edward E. Reich

cc: Richard Rhoads
Director, CPDD

Joseph Sableski, CPDD

bcc: Lou Paley

**Policy on Excess Emissions During Startup, Shutdown,
Maintenance and Malfunctions
(02/15/83)**

File at Part B, Document #5



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 15 1983

OFFICE OF
AIR, NOISE AND RADIATION

MEMORANDUM

SUBJECT: Policy on Excess Emissions During Startup, Shutdown, Maintenance, and Malfunctions

FROM: *Kathleen M. Bennett*
Kathleen M. Bennett, Assistant Administrator
for Air, Noise and Radiation

TO: Regional Administrators, Regions I-X

I have been asked to clarify my memorandum of September 28, 1982, concerning policy on excess emissions during startup and shutdown.

Specifically, I stated that "startup and shutdown of process equipment are part of the normal operation of a source and should be accounted for in the design and implementation of the operating procedure for the process and control equipment. Accordingly, it is reasonable to expect that careful planning will eliminate violations of emission limitations during such periods." I further stated that "[i]f excess emissions occur during routine startup and shutdown of such equipment, they will be considered as having resulted from a malfunction only if the source can demonstrate that such emissions were actually caused by a sudden and unforeseeable breakdown in the equipment."

A question has been posed as to whether there can be situations in which it is unreasonable to expect that careful planning can eliminate violations of emission limitations during startup and shutdown. I believe that there can be such situations. One such situation, which was already mentioned in the policy, is a malfunction occurring during these periods. A malfunction during startup or shutdown is to be handled as any other malfunction in accordance with the policy as presently written.

Another situation is one in which careful and prudent planning and design will not totally eliminate infrequent short periods of excesses during startup and shutdown. An example of this situation would be a source that starts up or shuts down once or twice a year and during that period there are a few hours when the temperature of the effluent gas is too low to prevent harmful

ormation of chemicals which would cause severe damage to control equipment if the effluent were allowed to pass through the control equipment.

Therefore, during this latter situation, if effluent gases are bypassed which cause an emission limitation to be exceeded, this excess need not be treated as a violation^(h) if the source can show that the excesses could not have been prevented through careful and prudent planning and design and that bypassing was unavoidable to prevent loss of life, personal injury, or severe property damage.

I have clarified the policy concerning this issue. A copy is attached.

Attachment



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

SEP 28 1982

OFFICE OF
AIR, NOISE AND RADIATION

MEMORANDUM

SUBJECT: Policy on Excess Emissions During Startup, Shutdown, Maintenance, and Malfunctions

FROM: Kathleen M. Bennett *Kathleen M. Bennett*
Assistant Administrator for Air, Noise and Radiation

TO: Regional Administrators, Regions I-X

This memorandum is in response to a request for a clarification of EPA's policy relating to excess emissions during startup, shutdown, maintenance, and malfunctions.

Excess emission provisions for startup, shutdown, maintenance, and malfunctions were often included as part of the original SIPs approved in 1971 and 1972. Because the Agency was inundated with proposed SIPs and had limited experience in processing them, not enough attention was given to the adequacy, enforceability, and consistency of these provisions. Consequently, many SIPs were approved with broad and loosely-defined provisions to control excess emissions.

In 1978, EPA adopted an excess emissions policy after many, less effective attempts to rectify problems that existed with these provisions. This policy disallowed automatic exemptions by defining all periods of excess emissions as violations of the applicable standard. States can, of course, consider any demonstration by the source that the excess emissions were due to an unavoidable occurrence in determining whether any enforcement action is required.

The rationale for establishing these emissions as violations, as opposed to granting automatic exemptions, is that SIPs are ambient-based standards and any emissions above the allowable may cause or contribute to violations of the national ambient air quality standards. Without clear definition and limitations, these automatic exemption provisions could effectively shield excess emissions arising from poor operation and maintenance or design, thus precluding attainment. Additionally, by establishing an enforcement discretion approach and by requiring the source to demonstrate the existence of an unavoidable malfunction on the source, good maintenance procedures are indirectly encouraged.

RECEIVED
11/3/82

Attached is a document stating EPA's present policy on excess emissions. This document basically reiterates the earlier policy, with some refinement of the policy regarding excess emissions during periods of scheduled maintenance.

A question has also been raised as to what extent operating permits can be used to address excess emissions in cases where the SIP is silent on this issue or where the SIP is deficient. Where the SIP is silent on excess emissions, the operating permit may contain excess emission provisions which should be consistent with the attached policy. Where the SIP is deficient, the SIP should be made to conform to the present policy. Approval of the operating permit as part of the SIP would accomplish that result.

If you have any questions concerning this policy, please contact Ed Reich at (382-2807).

Attachment

Attachment

POLICY ON EXCESS EMISSIONS DURING STARTUP, SHUTDOWN, MAINTENANCE, AND MALFUNCTIONS

Introduction

Several of the existing State implementation plans (SIPs) provide for an automatic emission limitation exemption during periods of excess emission due to startup, shutdown, maintenance, or malfunction.* Generally, EPA agrees that the imposition of a penalty for sudden and unavoidable malfunctions caused by circumstances entirely beyond the control of the owner and/or operator is not appropriate. However, any activity which can be foreseen and avoided, or planned, is not within the definition of a sudden and unavoidable breakdown. Since the SIPs must provide for attainment and maintenance of the national ambient air quality standards, SIP provisions on malfunctions must be narrowly drawn. SIPs may, of course, omit any provisions on malfunctions. [For more specific guidance on malfunction provisions for RACT SIPs, see the April 1978 workshop manual for preparing nonattainment plans].

I. EXCESS EMISSION FROM MALFUNCTIONS

A. AUTOMATIC EXEMPTION APPROACH

If a SIP contains a malfunction provision, it cannot be the type that provides for automatic exemption where a malfunction is alleged by a source. Automatic exemptions might aggravate air quality so as not to provide for attainment of the ambient air quality standards. Additional grounds for disapproving a SIP that includes the automatic exemption approach are discussed in more detail at 42 FR 58171 (November 8, 1977) and 42 FR 21372 (April 27, 1977). As a result, EPA cannot approve any SIP revisions that provides automatic exemptions for malfunctions.

* The term "excess emission" means an air emission rate which exceeds any applicable emission limitation, and "malfunction" means a sudden and unavoidable breakdown of process or control equipment.

B. ENFORCEMENT DISCRETION APPROACH--SIP EMISSION LIMITATION ADEQUATE TO ATTAIN AMBIENT STANDARDS

EPA can approve SIP revisions which incorporate the "enforcement discretion approach". Such an approach can require the source to demonstrate to the appropriate State agency that the excess emissions, though constituting a violation, were due to an unavoidable malfunction. Any malfunction provision must provide for the commencement of a proceeding to notify the source of its violation and to determine whether enforcement action should be undertaken for any period of excess emissions. In determining whether an enforcement action is appropriate, satisfaction of the following criteria should be considered.

1. To the maximum extent practicable the air pollution control equipment, process equipment, or processes were maintained and operated in a manner consistent with good practice for minimizing emissions;
2. Repairs were made in an expeditious fashion when the operator knew or should have known that applicable emission limitations were being exceeded. Off-shift labor and overtime must have been utilized, to the extent practicable, to ensure that such repairs were made as expeditiously as practicable;
3. The amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions;
4. All possible steps were taken to minimize the impact of the excess emissions on ambient air quality; and
5. The excess emissions are not part of a recurring pattern indicative of inadequate design, operation, or maintenance.

II. EXCESS EMISSIONS DURING STARTUP, SHUTDOWN, AND MAINTENANCE

Any activity or event which can be foreseen and avoided, or planned, falls outside of the definition of sudden and unavoidable breakdown of equipment. For example, a sudden breakdown which could have been avoided by better operation and maintenance practice is not a malfunction. In such cases, the control agency must enforce for violations of the emission limitation. Other such common events are startup and shutdown of equipment, and scheduled maintenance.

Startup and shutdown of process equipment are part of the normal operation of a source and should be accounted for in the planning, design and implementation of operating procedures for the process and control equipment. Accordingly, it is reasonable to expect that careful and prudent planning and design will eliminate violations of emission limitations during such periods. However, for a few sources there may exist infrequent short periods of excess emissions during startup and shutdown which cannot be avoided. Excess emissions during these infrequent short periods need not be treated as violations providing that the source adequately shows that the excess could not have been prevented through careful planning and design and that bypassing of control equipment was unavoidable to prevent loss of life, personal injury, or severe property damage.

If excess emissions occur during routine startup and shutdown due to a malfunction, then those instances will be treated as other malfunctions which are subject to the malfunction provisions of this policy. (Reference Part I above).

Similarly, scheduled maintenance is a predictable event which can be scheduled at the discretion of the operator, and which can, therefore, be made to coincide with maintenance on production equipment, or other source shutdowns. Consequently, excess emissions during periods of scheduled maintenance should be treated as a violation unless a source can demonstrate that such emissions could have been avoided through better scheduling for maintenance or through better operation and maintenance practices.

Attachment

POLICY ON EXCESS EMISSIONS DURING START-UP, SHUTDOWN, MAINTENANCE, AND MALFUNCTIONS.

Several of the existing State implementation plans (SIPs) provide for an automatic emission limitation exemption during periods of excess emission due to start-up, shutdown, maintenance, or malfunction.* Generally, EPA agrees that the imposition of a penalty for sudden and unavoidable malfunctions caused by circumstances entirely beyond the control of the owner and/or operator is not appropriate. However, any activity which can be foreseen and avoided, or planned is not within the definition of a sudden and unavoidable breakdown. Since the SIPs must provide for attainment and maintenance of the national ambient air quality standards, SIP provisions on malfunctions must be narrowly drawn. SIPs may, of course, omit any provision on malfunctions. [For more specific guidance on malfunction provisions for RACT SIPs, see the April 1978 workshop manual for preparing nonattainment plans.]

I. AUTOMATIC EXEMPTION APPROACH

If a SIP contains a malfunction provision, it cannot be the type that provides for automatic exemption where a malfunction is alleged by a source. Automatic exemptions might aggravate air quality so as not to provide for attainment of the ambient air quality standards. Additional grounds for disapproving a SIP that includes the automatic exemption approach are discussed in more detail at 42 FR 58171 (November 8, 1977) and 42 FR 21372 (April 27, 1977). As a result, EPA cannot approve any SIP revision that provides automatic exemptions for malfunctions.

II. ENFORCEMENT DISCRETION APPROACH--SIP EMISSION LIMITATION ADEQUATE TO ATTAIN AMBIENT STANDARDS

EPA can approve SIP revisions which incorporate the "enforcement discretion approach". Such an approach can require the source to demonstrate to the appropriate State agency that the excess emissions, though constituting a violation, were due to an unavoidable malfunction. Any malfunction provision must provide for the commencement of a proceeding to notify the source of its violation and to determine whether enforcement action should be undertaken for any period of excess emissions. In determining whether an enforcement action is appropriate, satisfaction of the following criteria should be considered:

* The term "excess emission" means an air emission rate which exceeds any applicable emission limitation, and "malfunction" means a sudden and unavoidable breakdown of process or control equipment.

1. To the maximum extent practicable the air pollution control equipment, process equipment, or processes were maintained and operated in a manner consistent with good practice for minimizing emissions;

2. Repairs were made in an expeditious fashion when the operator knew or should have known that applicable emission limitations were being exceeded. Off-shift labor and overtime must have been utilized, to the extent practicable, to ensure that such repairs were made as expeditiously as practicable;

3. The amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions;

4. All possible steps were taken to minimize the impact of the excess emissions on ambient air quality; and

5. The excess emissions are not part of a recurring pattern indicative of inadequate design, operation, or maintenance.

III. EXCESS EMISSIONS DURING START-UP, SHUTDOWN, AND MAINTENANCE

Any activity or event which can be foreseen and avoided, or planned, falls outside of the definition of sudden and unavoidable breakdown of equipment. For example, a sudden breakdown which could have been avoided by better operation and maintenance practices is not a malfunction. In such cases, the control agency must enforce for violations of the emission limitation. Other such common events are start-up and shutdown of equipment, and scheduled maintenance.

Start-up and shutdown of process equipment are part of the normal operation of a source and should be accounted for in the design and implementation of the operating procedure for the process and control equipment. Accordingly, it is reasonable to expect that careful planning will eliminate violations of emission limitations during such periods.

If excess emissions occur during routine start-up and shutdown of such equipment, they will be considered as having resulted from a malfunction only if the source can demonstrate that such emissions were actually caused by a sudden and unforeseeable breakdown in the equipment.

Similarly, scheduled maintenance is a predictable event which can be scheduled at the discretion of the operator, and which can therefore be made to coincide with maintenance on

production equipment, or other source shutdowns.

Consequently, excess emissions during periods of scheduled maintenance should be treated as a violation unless a source can demonstrate that such emissions could not have been avoided through better scheduling for maintenance or through better operation and maintenance practices.

**Source Specific SIP Revisions
(07/29/83)**

File at Part B, Document #6



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D C. 20460

JUL 29 1993

OFFICE OF
AIR, NOISE, AND RADIATION

MEMORANDUM

SUBJECT: Source Specific SIP Revisions

FROM: Sheldon Meyers, Director /S./
Office of Air Quality Planning and Standards (ANR-443)

TO: Director, Air and Waste Management Division
Regions II-IV, VI-VIII, X
Director, Air Management Division, Regions I, V, IX

We have recently noticed a significant increase in the number of source specific SIP revisions being processed. While no single reason can explain the increase entirely, it appears that the improved ability of Regions to process such actions as well as the passage of compliance dates has led to the increase. It is imperative that Regions determine whether SIP revisions are the appropriate administrative mechanism to deal with these actions and that these submittals be adequately supported. In this regard I am making the following recommendations:

° Many of these submittals consist of relaxations for individual sources in nonattainment areas. Presumably, the States want not only EPA approval of these relaxations, but also maintenance of the overall approval status of their SIP's. Hence, they are not asking for EPA to approve the relaxations if that would mean that the construction ban would come into or continue in effect. For a State to secure EPA approval of a relaxation and continue overall approval status, however, the State would need to show that the SIP as a whole, despite the relaxation, would continue to "provide for" attainment by the end of 1982 in the case of nonextension areas or as expeditiously as practicable, but no later than 1987 in extension areas. For VOC this generally will require a data base and modeling demonstration consistent with that applied in extension areas. For TSP and SO₂, this will require a modeling demonstration using reference modeling techniques and best available data. I recommend that the Regions return to the States as incomplete any submittal that does not include the above demonstration.

° Each Region that is currently experiencing an increase in the number of source specific SIP revisions for areas in attainment, or where the attainment date has not passed, should discuss with its States whether individual SIP revisions are the most appropriate means to deal with an action. Where alternative administrative mechanisms exist or can be developed without adversely impacting the Federal enforceability of the SIP, these mechanisms should be employed. For example, Regions could negotiate with States to bundle source specific revisions into a more comprehensive submittal rather than submit a number of individual actions.

• Where the State is considering submitting a revision of a temporary nature, such as a compliance date extension for a limited period of time (e.g., less than the time it would reasonably take to process the submittal), Regions should evaluate whether processing the action will serve any tangible public interest. Where the Region does not find any such circumstances exist, States should be discouraged from using the SIP process for such actions.

I believe these recommendations should help you in your review of future SIP revisions and help Regions maintain the excellent record for SIP processing. If you have any questions regarding these recommendations, please contact G. T. Helms at FTS 629-5526 or ~~John Rasnic at FTS 332-2826.~~

cc: Air Branch Chief, Regions I-X
Darryl Tyler
Ed Reich
Bill Pedersen
Mike Alushin
Chuck Elkins
Jack Hidingar

**Policy on SIP Revisions Requesting Compliance
Date Extensions for VOC Sources
(08/07/86)**

File at Part B, Document #7



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUB - 7 1986


OFFICE OF
AIR AND RADIATION

MEMORANDUM

SUBJECT: Policy on SIP Revisions Requesting Compliance Date Extensions for VOC Sources

FROM: J. Craig Potter
Assistant Administrator
for Air and Radiation

TO: Regional Administrators
Regions I-X



A number of States have asked EPA to approve SIP revisions granting compliance date extensions for individual VOC sources in ozone nonattainment areas. The attached policy sets forth EPA's position on when approval of such SIP revisions is appropriate and what the States must demonstrate in order for EPA to approve them. Regional Offices should review the requests for SIP revisions for conformance to this policy. SIP revisions now pending at Headquarters will also need to be reviewed by the Regions in light of this policy.

Attachment

cc: Richard H. Mays, OECM
Gerald A. Emison, OAQPS
Alan Eckert, OGC
Air Division Directors, Regions I-X
Regional Counsels, Regions I-X

Policy on SIP Revisions Requesting Compliance Date
Extensions for VOC Sources

In order to approve a source-specific compliance date extension, two tests must be met. First, a State must demonstrate that the extension will not interfere with timely attainment (attainment by the formally established attainment date) and maintenance of the ozone standard and, where relevant "reasonable further progress" (RFP) towards timely attainment. 1/ The attainment date will generally be December 31, 1982, or the date established under Section 110 where the State has adequately responded to a request for SIP revisions under §110(a)(2)(H), or December 31, 1987 in ozone extension areas. The demonstration may be based on a comparison between the margin for attainment predicted by the demonstration submitted with the approved ozone SIP 2/ and the increased emissions that would result under the proposed compliance date extension. 3/ If there is an adequate margin to absorb the increased emissions (and the extension would not interfere with RFP), then EPA may conclude that the compliance date extension will not interfere with the attainment and continued maintenance of the ozone standard.

1/ The reference to a demonstration of RFP towards timely attainment is not intended to redefine RFP but only reaffirms that an RFP analysis is required.

2/ For areas where revisions to the Part D SIP are required (such as 1987 extension areas or SIP call areas) and those revisions have not been fully approved, the State would have to submit a demonstration the equivalent of that required for EPA approval of the ozone SIP. Without an approvable demonstration EPA cannot determine whether the individual compliance date extension will interfere with timely attainment and maintenance of the standard, or with RFP. A de minimis showing would not be acceptable, since in the aggregate even very small sources would contribute significantly to ozone formation.

3/ In making such a comparison it will be necessary to determine what, if any, portion of the margin has been utilized by new sources of VOCs that may have located in the area since the SIP was approved, as well as by existing VOC sources that may have already been granted compliance date extensions.

If the State or EPA believes that there has been a substantial change in the inventory of VOC sources or total VOC emissions since the ozone SIP was approved so that the margin of attainment has changed significantly, a revised demonstration in support of the source-specific SIP revision should be submitted. 4/

Second, time extensions also must be consistent with the requirement that nonattainment area SIPs provide for "implementation of all reasonably available control measures as expeditiously as practicable" [§172(b)(2)]. Expeditionness should be demonstrated by determining when the source was first put on notice of the applicable requirement (e.g., adoption of the current regulation by the State) and the time that has elapsed since then. EPA has generally determined that for most VOC sources this period is less than three years. 5/ Any source-specific SIP revision for a compliance date extension within these timeframes may be presumed to be expeditious. Compliance date extensions for periods longer than these timeframes, however, should be closely scrutinized to determine whether or not they are truly expeditious. 6/ This should include an examination of the compliance status of other sources nationally in the same VOC source category (this examination would be the responsibility of the State), and the most expeditious means of compliance available (including add on control equipment, process change, or raw material improvement) irrespective of the method proposed in the SIP

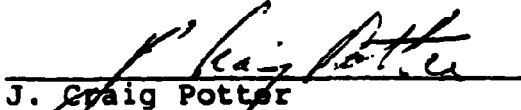
4/ Such a demonstration would be necessary, for example, in areas originally demonstrating attainment by 1982, but for which post-1982 monitoring data are indicating exceedances of the ozone standard or raising serious questions about the original prediction of attainment.

7 | 5/ For three source categories (can coating operations, graphic arts printing and automotive assembly plant paint shop operations), based on industry experience EPA has through policy statements concluded that expeditiousness may be longer than three years.

6/ The same holds true for review of individual compliance date extensions incorporated in any area-wide ozone SIP revisions submitted by a State (such as those being submitted pursuant to an EPA SIP call under Section 110(a)(2)(H)). Any change in the original deadline for an individual VOC source incorporated in an area-wide ozone SIP revision must be demonstrated to be expeditious (as well as not interfere with timely attainment and maintenance).

revision. Unless it can be shown that the original timeframe approved in the SIP did not allow sufficient time for an economically and technologically feasible compliance plan to be implemented, a SIP revision for a compliance date extension beyond the timeframes set forth above should be denied.

In conclusion, both the demonstration of timely attainment (including RFP where relevant) and maintenance and the expeditiousness tests must be met before a State SIP revision can be approved.


J. Craig Potter
Assistant Administrator
for Air and Radiation

AUG - 7 1986

**Review of State Implementation Plans and
Revisions for Enforceability and Legal Sufficiency
(09/23/87)**

File at Part B, Document #8



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

SEP 23 1987

MEMORANDUM

SUBJECT: Review of State Implementation Plans and Revisions
for Enforceability and Legal Sufficiency

FROM: J. Craig Potter
Assistant Administrator
for Air and Radiation

Thomas L. Adams Jr.
Assistant Administrator for Enforcement
and Compliance Monitoring

Francis S. Blake
General Counsel
Office of General Counsel

TO: Addressees

One critical function that your offices perform is to assure that regulations developed for stationary sources by the States under the Clean Air Act are enforceable and legally sufficient. Our regulations require that the state implementation plans ("SIPs") must "be adopted as rules and regulations enforceable (emphasis added) by the State agency" (40 C.F.R. §51.281 (1987)). We are concerned that review of SIPs for enforceability has not been receiving adequate attention. The Agency sometimes experiences difficulties in its efforts to enforce the current rules because they are not sufficiently clear. The Regional Offices are at the forefront of the federal SIP approval process. The purpose of this memorandum is to remind you of the importance of doing the review necessary to assure that all SIP plans and revisions are enforceable and in conformance with the Act. Please do not forward for approval SIPs which fail to satisfy the enforceability criteria in this memorandum.

Background

Recent information indicates that the attention being paid to SIP approvals is declining, particularly for enforceability. The Office of General Counsel reviews regulations as to their adequacy under applicable law and Agency policy, but not for enforceability. This void is not being filled by other offices. Often, the problems with enforcing the regulations are not immediately obvious and only become known where a case or issue focuses on the particular regulation. At the October 1986

Annapolis meeting of Air Program Directors and Regional Counsel Air Branch Chiefs, a number of problems in recent enforcement cases due to difficulty in interpreting and enforcing regulations were discussed. With the recent work being done to address the nonattainment problem, it is even more critical that regulations be clear and enforceable.

It is appropriate that the Regional air compliance staff and the Regional Counsel's Office have primary responsibility for this enforceability review because they have the most direct experience in compliance and rule interpretation. They also have resources allocated through their workload models specifically for SIP review.

Timing of Review

The Regions should try to review developing State SIP provisions prior to final approval by the State, when the provisions are at their most malleable stage. In line with this, each Region should provide its States with a copy of the implementing guidance associated with this memorandum and a briefing which outlines the enforceability requirements for new SIP submittals. If we provide the States with more explicit guidance and make earlier contacts to resolve problems, we can avoid instances where EPA is pressured to settle for a flawed regulation only because it is better than its predecessor.

Enforceability Criteria

Your review should ensure that the rules in question are clearly worded and explicit in their applicability to the regulated sources. Vague, poorly defined rules must become a thing of the past. SIP regulations that deviate from this policy are to be disapproved pursuant to Section 110(a) of the Clean Air Act, with appropriate references in the C.F.R. Specifically, we are concerned that the following issues be directly addressed. The rule should be clear as to who must comply and by what date. The effect, if any, of changed conditions (e.g., redesignation to attainment) should be set forth. The period over which compliance is determined and the relevant test method to be used should be explicitly noted. Provisions which exempt facilities under certain sizes or emission levels must identify explicitly how such size or level is determined. Also, provisions which allow for "alternate equivalent techniques" or "bubbles" or any other sort of variation of the normal mode of compliance must be completely and explicitly defined and must make clear whether or not EPA case-by-case approval is required to make such a method of compliance federally effective.

Conclusion

SIP revisions should be written clearly, with explicit language to implement their intent. The plain language of all rules, as well as the related Federal Register notices, should be complete, clear and consistent with the intended purpose of the rules. Specific review for enforceability will be a further step in improving the overall SIP process and structure.

We have attached detailed guidance to assist you in implementing this memorandum.

Attachment

Addressees:

Regional Administrators
Regions I-X

Regional Counsels
Regions I-X

Air Management Division Directors
Regions I, III and IX

Air and Waste Management Division Director
Region II

Air, Pesticides, and Toxics Management Division
Directors
Regions IV and VI

Air and Radiation Division Director
Region V

Air and Toxics Division Directors
Regions VII, VIII and X

cc: Deputy Regional Administrators
Regions I-X

Regional Counsel
Air Contacts
Regions I-X

Air Compliance Branch Chiefs
Regions II, III, IV, V, VI, IX

Air Program Branch Chiefs
Regions I-X

Darryl Tyler, Director
Control Programs Development Division

Gerald Emison, Director
Office of Air Quality Planning and Standards

-4-

cc: John S. Seitz, Director
Stationary Source Compliance Division
Office of Air Quality Planning and Standards

Alan W. Eckert
Associate General Counsel
Air Division

Michael S. Alushin
Associate Enforcement Counsel
Air Enforcement Division



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

SEP 23 1987

MEMORANDUM

SUBJECT: Review of State Implementation Plans and Revisions
for Enforceability and Legal Sufficiency

FROM: Michael S. Alushin *M. S. Alushin*
Associate Enforcement Counsel
for Air Enforcement

Alan W. Eckert *Alan W. Eckert*
Associate General Counsel
Air and Radiation Division

John S. Seitz, Director *John S. Seitz*
Stationary Source Compliance Division
Office of Air Quality Planning and Standards

TO: Addressees

This is to provide implementing guidance on the memorandum issued by J. Craig Potter, Thomas Adams and Francis Blake on this date relating to review of SIP plans and revisions for enforceability and legal sufficiency. We urge you to provide copies of these memoranda to your State Agency Directors.

Applicability

This guidance applies to all SIP proposals which have not completed the state or local agency legal and procedural requirements for SIPs. For proposals that have not yet been submitted to the Regional office for action, the state and local agencies have forty-five (45) days from the date of this guidance to submit such proposals for review in order for the proposal to be considered under previous procedures. SIP packages currently in Headquarters will undergo the usual review but will be returned to the Regions if they contain deficiencies which raise significant questions as to whether the regulation would be enforceable.

Enforceability Criteria

The notion of enforceability encompasses several concepts. At the most basic level, a regulation must be within the statutory authority of the promulgating agency. For example, some states have statutory restrictions or prohibitions on the promulgation of regulations more restrictive than the federal counterpart.

Although we should generally defer to a State's interpretation of the scope of its authority, when there is real doubt we should, at a minimum, consult the responsible State Attorney to be certain the issue has been considered and resolved. When appropriate, an opinion letter should be obtained from the State Attorney General.

Please ensure that the following additional issues are directly addressed.

- ° Applicability

It should be clear as to whom the regulation applies. The SIP should include a description of the types of affected facilities. The rule should also state in which areas the rule applies (entire state, specific counties, nonattainment, etc.) and advise the reader that State administrative changes require a formal SIP revision. Also, some regulations might require a certain percentage reduction from sources. The regulation should be clear as to how the baseline from which such a reduction is to be accomplished is set. In some cases it may be necessary for enforcement purposes and independent of Clean Air Act requirements for the SIP to include an inventory of allowable and actual emissions from sources in the affected categories in order to set the above baseline.

- ° Time

The regulation should specify the required date of compliance. Is it upon promulgation, or approval by EPA, or a future date certain? Future effective dates beyond the approved or proposed attainment date should not be allowed unless the related emissions reductions are not needed for attainment. Also, the regulation should specify the important dates required of any compliance schedule which is required to be submitted by the source to the state.

- ° Effect of Changed Conditions

If changed circumstances affect an emission limit or other requirement, the effect of changed conditions should be clearly specified. However, you should not approve state regulations which tie the applicability of VOC control requirements to the nonattainment status of the area and allow for automatic nullification of the regulations if the area is redesignated to an attainment status. Such regulations should continue to apply if an area is redesignated from nonattainment to attainment status unless a new maintenance demonstration supporting a change in the rule's applicability is submitted and approved by EPA.

° Standard of Conduct

The regulation must be sufficiently specific so that a source is fairly on notice as to the standard it must meet. For example, "alternative equivalent technique" provisions should not be approved without clarification concerning the time period over which equivalency is measured as well as whether the equivalency applies on a per source or per line basis or is facility wide.

° Incorporation by Reference

Some federal regulations are inappropriate for adoption by reference. For example, a state intending to enforce PSD regulations adopted by reference must adopt 40 C.F.R. §52.21, not 40 C.F.R. §51.166, as only the former is written in a form imposing obligations on permit applicants. Even then, changes may have to be made to take into account the difference between the State's situation and EPA's.

° Transfer Efficiency

Some states have attempted to provide particular VOC sources with relaxations of compliance limits in return for improvements in the efficiency with which the sources use the pollutant producing material. Any rules allowing transfer efficiency to be used in determining compliance must be explicit as to when and under what circumstances a source may use improved transfer efficiency as a substitute for meeting the SIP limit. Such provisions must state whether EPA approval is required on a case-by-case basis. Also, such provisions may not simply reference the NSPS auto coating tables for the transfer efficiency. The improvement should be demonstrated through testing and an appropriate test method should be set forth. Implied improvements noted by the NSPS auto coating TE table are not to be accepted at face value.

° Compliance Periods

SIP rules should describe explicitly the compliance time frame associated with each emission limit (e.g. instantaneous, stack test, 3 hour average or daily). The Regions should not assume that a lack of specificity implies instantaneous compliance. The time frame or method employed must be sufficient to protect the standard involved.

° Equivalency Provisions and Discretionary Emission Limits

Certain provisions allow sources to comply via "bubbles" or "alternate equivalent techniques" or through mechanisms "as approved by the Director." These provisions must make it

clear as to whether EPA approval of state granted alternative compliance techniques is required on a case-by-case basis in order for the changed mode of compliance to replace the existing federally enforceable requirement. If EPA case-by-case approval will not be required, then specific, objective and replicable criteria must be set forth for determining whether the new arrangement is truly equivalent in terms of emission rates and ambient impact. Such procedures must be consistent with the control levels specified in the overall SIP control strategy and must meet other EPA policy requirements, including the "Emissions Trading Policy", 51 Fed. Reg. 43814 (1986), in relevant instances.

- ° Recordkeeping

The SIP must state explicitly those records which sources are required to keep to assess compliance for the time frame specified in the rule. Records must be commensurate with regulatory requirements, and must be available for examination on request. The SIP must give reporting schedules and reporting formats. For example, these rules must require daily records if the SIP requires daily compliance. Additionally, the record-keeping must be required such that failure to do so would be a separate violation in itself.

- ° Test Methods

Each compliance provision must list how compliance is to be determined and the appropriate test method to be used. The allowable averaging times should be explicit. Both the test method and averaging times employed must be sufficient to protect the ambient standard involved.

- ° Exemptions

If sources under a certain size are exempted from control requirements, the regulation must identify how the size of a particular source is to be determined.

- ° Malfunction and Variance Provisions

Any malfunction or variance exemptions must be clear in their substantive application and in how they are triggered. The rule must specify what exceedances may be excused, how the standard is to be applied, and who makes the determination.

Conclusion

We appreciate your attention to this matter and hope that the specific review for enforceability will be a further step in improving the overall SIP process and structure. To assist you, we have attached an enforceability checklist. This checklist should be included as part of your technical support packages in all future SIP packages.

Please contact the appropriate staff attorney in the Office of General Counsel or the Office of Enforcement and Compliance Monitoring should you have any questions concerning issues of enforceability in particular instances. Please contact Tom Helms, OAQPS, FTS-629-5526, for other questions concerning implementation of this guidance.

Attachment

Addressees:

Regional Administrators
Regions I-X

Regional Counsels
Regions I-X

Air Management Division Directors
Regions I, III and IX

Air and Waste Management Division Director
Region II

Air, Pesticides, and Toxics Management Division
Directors
Regions IV and VI

Air and Radiation Division Director
Region V

Air and Toxics Division Directors
Regions VII, VIII and X

cc: Deputy Regional Administrators
Regions I-X

Regional Counsel
Air Contacts
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Air Compliance Branch Chiefs
Regions II, III, IV, V, VI, IX

Air Program Branch Chiefs
Regions I-X

Darryl Tyler, Director
Control Programs Development Division

Gerald Emison, Director
Office of Air Quality Planning
and Standards

SI OVABILITY CHECKLIST- ENFORCEABILITY

SIP Package No. _____ Date Rec. _____ Date Due _____

STATE: _____

Subject Matter: _____

(Specific Provision and Description)

Enforceability Analysis	State Submittal (list responses)	EPA Requirement	Approvability (Approvable or Not)
<p>1. Applicability</p> <p>a. What sources are being regulated?</p> <p>b. What are criteria for exemption?</p> <p>c. Is calculation procedure for exemption clearly specified?</p> <p>d. Is emission inventory listed in the background document of the attainment demonstration?</p>		<p>Clarity</p> <p>Clarity</p> <p>Example calculation or clear explanation of how to determine exemption (line by line, etc.)</p> <p>Inventory including allowable and actual emissions in source category should be included, for enforcement purposes and independent of any Clean Air Act requirements, in the attainment demonstration if such data is necessary for determining baselines in regulations.</p>	

Enforceability Analysis	State Submittal	EPA Requirement	Approvability (Approvable or Not)
<p>e. Is the averaging time(s) used in the rule different from that of the ambient standard?</p> <p>f. What are the units of compliance (lbs VOC per gallon of solids applied less water, grains per standard cubic foot?)</p> <p>g. Is bubbling or averaging of any type allowed? If yes, state criteria. Could a U.S. EPA inspector independently determine if the criteria were met? Does EPA have to approve each case?</p>		<p>The averaging time in the rule must be consistent with protecting the ambient standard in question. Normally, it should be equal to or shorter than the time associated with the standard. Longer term averaging is available only in limited instances provided that the ambient standard is not compromised.</p> <p>Clearly stated in the rule</p> <p>Explicit description of how averaging, bubbling, or equivalency is to be determined. VOC equivalency must be on a "solids applied" basis. Any method must be independently reproducible. Provision must be explicit as to whether EPA case-by-case approval required. If provision intended to be "generic" then EPA bubble policy must be met.</p>	

En	eability Analysis	State Submittal	A Requirement	Approvability (Approv or Not)
	<p>h. If there is a redesignation, will this change the emission limitations? If yes, which ones and how?</p>		<p>Regulation may not automatically allow for self nullification upon redesignation of area to attainment. New maintenance demonstration required in order to drop regulation.</p>	
	<p>2. Compliance Dates</p> <p>a. What is compliance date?</p> <p>b. What is the attainment date?</p>		<p>Must not be later than approved or about to be approved date of attainment unless emission reductions not necessary for attainment. In some cases, it will be necessary for the regulation to specify dates in compliance schedules that are required to be submitted by source to state.</p>	
	<p>3. Specificity of Conduct</p> <p>a. What test method is required?</p> <p>b. What is the averaging time in compliance test method?</p> <p>c. Is a compliance calculation or evaluation required? (i.e., daily weighted average for VOC).</p> <p>d. If yes to "c," list the formula, period of compliance, and/or evaluation method.</p>		<p>Test method must be explicitly stated.</p> <p>Averaging time and application of limit must be explicit.</p> <p>Formula must be explicit.</p>	

Enforceability Analysis	State Submittal	EPA Requirement	Approvability (Approvable or Not)
<p>4. Incorporation by Reference</p> <p>a. What is state authority for rulemaking?</p> <p>b. Are methods/rules incorporated by reference in the right manner.</p> <p>5. Recordkeeping</p> <p>a. What records are required to determine compliance?</p> <p>b. In what form or units (lbs/gal, gr/dscf, etc.) must the records be kept? On what time basis (instantaneously, hourly, daily)?</p> <p>c. Does the rule affirmatively require the records be kept?</p>		<p>Clarity</p> <p>Records to be kept must be consistent with units of compliance in the performance requirements, including the applicable time period.</p> <p>There must be a clear separately enforceable provision that requires records to be kept.</p>	

En	ability Analysis	State Submittal	EPA Requirement	Approvability (Approvable or Not)
6.	Exemptions		Must be clearly defined and distinguishable from what constitutes a violation.	
	a. List any exemptions allowed.			
	b. Is the criteria for application clear?			
7.	Malfunction Provisions		Rule must specify what exceedances may be excused, how the standard is to be applied, and who makes the determination.	

#9

Guidance on Addressing Capture Efficiency in Enforcing VOC SIP Regulations

03/16/90



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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MEMORANDUM

SUBJECT: Guidance on Addressing Capture Efficiency In
Enforcing VOC SIP Regulations

FROM: John S. Seitz, Director *John S. Seitz*
Stationary Source Compliance Division
Michael S. Alushin, Associate Enforcement Counsel *M. S. Alushin*
Office of Enforcement and Compliance Monitoring

TO: Air Management Division Directors
Regions III and IX

Air and Waste Management Division Director
Region II

Air, Pesticides and Toxics Management Division
Directors
Region I, IV, and VI

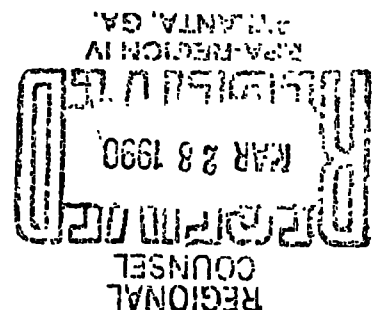
Air and Radiation Division Director
Region V

Air and Toxics Division Directors
Regions VII, VIII, and X

Regional Counsels, Regions I - X

SUMMARY

This memorandum is guidance to the Regions on how to address capture efficiency when enforcing current state implementation plan (SIP) regulations limiting volatile organic compound (VOC) emissions. It requires the Regions to use capture efficiency test protocols being developed by OAQPS. It also suggests States use these protocols as well when resolving cases against violators.



BACKGROUND

Capture Efficiency Requirements in SIPs

Many SIP regulations of VOC emissions allow the regulated source to comply with the emission limit using add-on control equipment, such as incinerators. To determine the efficiency of these controls in reducing VOC emissions, it is necessary to measure how much of the total VOC emissions from the regulated source is captured and delivered to the device that destroys the VOC. The capture efficiency (CE) of VOC control equipment is, therefore, a critical component of a compliance determination at a facility which is using control equipment to comply with SIP VOC emission limits. On August 7, 1986, EPA issued guidance which substantially restricted a source's option to try to reformulate its coatings and comply with VOC limits without control equipment. As a result, more sources are installing equipment, the CE of which must be measured.

Capture Efficiency Test Protocols and the Post - 1987 Process

Most of the current SIPs do not specify how EPA or the States should measure CE. To date EPA has not published a Reference Test Method for CE. On May 25, 1989, OAQPS issued guidance for correcting capture efficiency regulations in a memorandum from Gerald Emison entitled "Correcting Capture Efficiency (CE) Regulations". This guidance used as a basis a memorandum dated July 7, 1980 from James Berry, ESD to Doug Cook, Region IV regarding the Determination of Capture Efficiency to describe the generally accepted principles according to which CE tests should be conducted. Further, OAQPS is developing methods for testing capture efficiency which provide for a CE test in the following ways: 1) a gas-gas material balance requiring the source to temporarily enclose the line to be tested; 2) a liquid-gas material balance for line-by-line testing; and 3) a gas-gas material balance which treats the entire facility as an enclosure. As EPA gains more experience measuring CE, new methods may become available and these methods may be updated, replaced, or superseded.

As part of the Post-1987 process to improve EPA's ability to enforce the SIP VOC regulations, EPA, through the May 25, 1989 guidance referred to above, has required the states to commit to adopt enforceable CE testing requirements into their VOC SIP regulations when EPA has CE protocols available. Until this SIP revision process is completed, however, EPA must have a consistent policy about how to measure CE to determine compliance with existing SIP emission limits. This guidance addresses the appropriate test method to use in likely enforcement settings.

CAPTURE EFFICIENCY COMPLIANCE DETERMINATIONS

SIP Compliance Determinations

Under Section 114 of the Clean Air Act, EPA clearly has authority to require sources to perform those tests reasonably required to determine compliance with a SIP emission limit. With no test method specified in the SIP to measure CE, it is incumbent upon EPA to determine compliance based on evidence which experts would agree supports a determination to a reasonable scientific certainty. In other words, EPA must decide case-by-case what evidence it must collect to prove a CE value at a facility in order to meet its burden of proof.

Where the CE at a facility is in question, the Regional enforcement program should issue a testing requirement under Section 114 to collect test data necessary to prove a CE value. The test should be conducted according to the most recent version of the CE test methods available from OAQPS¹. There may be circumstances where the Region believes the methods are inappropriate or infeasible for a source, or the Region may have questions concerning a specific application of the method. In such cases, the Region should contact the Stationary Source Compliance Division (SSCD). SSCD will consult with the appropriate office and provide advice to the Region or arrange for the appropriate office to advise the Region directly.

Consent Decree Compliance Determinations

When negotiating a compliance schedule in a consent decree which requires the installation of VOC control equipment, the parties have an opportunity to agree to a test method and be bound by its results in determining compliance with the decree. Such consent decrees should specify the CE test protocol the facility will use to demonstrate compliance with the SIP regulation. As with initial SIP compliance determinations, EPA should use the most recent version of the CE test methods available, and incorporate the terms of the appropriate method into the decree. When negotiating the consent decree, the litigation team on the case should vary from the method only after consultation with SSCD.

¹ The current versions of these methods are attached to this memorandum in a document entitled "Guidelines for Developing Capture Efficiency Protocols."

STATE ENFORCEMENT CASES

When resolving cases against VOC sources on the significant violators list, EPA expects the states to include a demonstration of compliance in any resolution. Where the source uses control equipment, the demonstration should include a CE test. For these cases, EPA urges the states to use the attached test methods, and to consult with the appropriate EPA Regional office if they have questions concerning specific applications of the test methods.

Attachments**Addressees**

cc: STAPPA/ALAPCO

J. Berry

J. Calcagni

J. Farmer

W. Laxton

G. McAlister

J. Silvasi

T. Williamson

G. Wood

S. Wyatt

Chief, Air Branch, Regions I - X

VOC Enforcement Contacts, Region I - X

GUIDELINES FOR DEVELOPING CAPTURE EFFICIENCY PROTOCOLS

INTRODUCTION

There are two general types of material balance approaches that may be used to measure capture efficiency (CE), commonly referred to as the gas/gas and the liquid/gas approaches. Both approaches are based on the principle that the total amount of volatile organic compounds (VOC) introduced to the process (L) is equal to the total amount of VOC that leaves the process. This latter amount would be the total captured VOC emissions (G), i.e., those emissions delivered to the control device, plus the amount of fugitive VOC emissions (F).

Capture efficiency procedures with greater details are attached. The procedures are as follows:

- Procedure L - VOC in Liquid Input Stream
- Procedure G.1 - Captured VOC Emissions
- Procedure G.2 - Captured VOC Emissions (Dilution Technique)
- Procedure F.1 - Fugitive VOC Emissions from Temporary Enclosures
- Procedure F.2 - Fugitive VOC Emissions from Building Enclosures

The applicable procedures are the basic elements of a protocol. Since each site presents different and unique process and sampling situations, no one protocol can be expected to apply to all cases. Therefore, one must evaluate each site on a case-by-case basis and choose a suitable protocol. This protocol may not give the most accurate CE determination, but may be considered the "best compromise" after considering the limitations imposed by the specific site.

Determination of the parameters L, G, and F involves several individual measurements, each of which produces some uncertainty. An understanding of the various approaches and the probable errors (PE's) involved is helpful in guiding the selection and development of CE protocols. This error analysis uses the logarithmic differential method. (Note: The discussion considers multiple points of L, G, and F collectively. Thus, in developing a protocol, the equations should be adapted to the specific plant and account for the individual input or emission points by proper summations.)

The two general mass balance approaches have a number of variations. In this guideline, these variations will be discussed and the CE, maximum error, and PE equations will be presented. Then, estimates of the PE's will be given and summarized. Finally, an order of protocol consideration will be suggested.

A summary of the nomenclature is given below to assist in the discussion, along with a generalized coating process (see Figure 1).

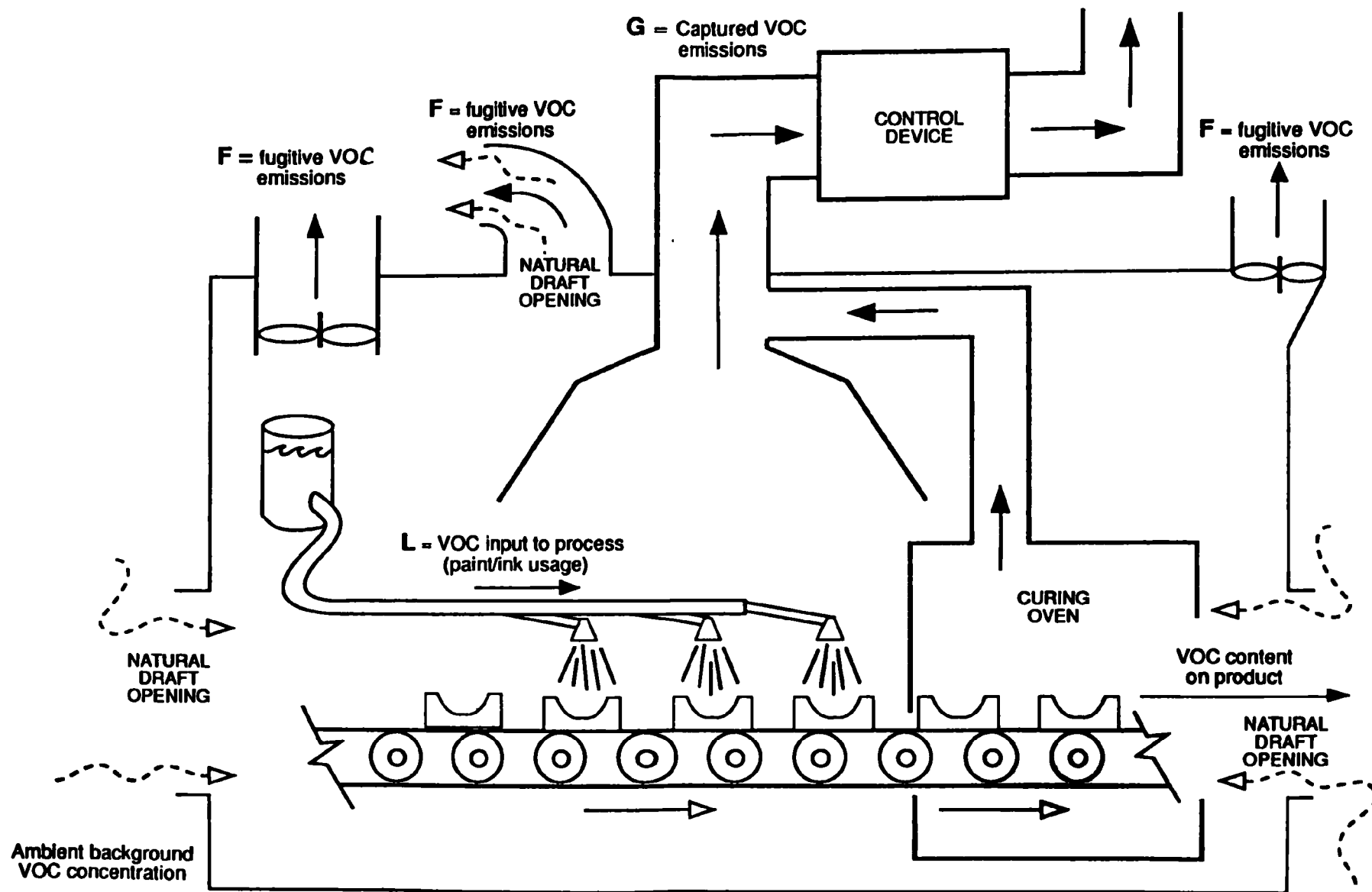


Figure 1. Generalized coating process.

NOMENCLATURE

- C = VOC concentration.
- C_c = C of captured VOC emissions.
- CE = capture efficiency.
- CV = VOC resulting from cure volatiles.
- D = VOC destroyed by combustion.
- E = VOC emissions from control device.
- F = fugitive VOC emissions.
- F_b = F from building enclosure.
- F_w = F with TTE.
- F_{wo} = F without TTE.
- G = gaseous phase captured VOC emissions.
- G_w = G with TTE.
- G_{wo} = G without TTE.
- L = liquid phase VOC input.
- M_r = mass of VOC recovered from adsorption control device.
- P = VOC remaining in product.
- PO = VOC from particulate organics.
- PE = probable error.
- PTE = permanent total enclosure.
- Q = volumetric flow rate.
- R = overall reduction efficiency.
- TTE = temporary total enclosure.
- V = VOC content of VOC containing material.
- W = liquid mass input of VOC containing material.

CAPTURE EFFICIENCY, MAXIMUM ERROR, AND PROBABLE ERROR EQUATIONS

1. GAS/GAS PROTOCOLS

The gas/gas approach is called such because only gas phase measurements are used to calculate both the VOC input and to determine the captured VOC emissions. The basic assumption is that the sum of the captured VOC emissions (G) and the fugitive VOC emissions (F) is equal to the VOC input (L), i.e., $G + F = L$.

The major difficulty with the gas/gas approach is the measurement of F when the emissions are not confined into a measurable configuration. Four techniques for measuring F have been proposed. The first is to measure F from a temporary total enclosure (TTE); the second is to measure G with and without a TTE and to determine F by difference; the third is to measure F from the existing building enclosure; and the fourth is to construct a permanent total enclosure (PTE). The protocols based on each of these techniques are discussed below. In each of these techniques, the background VOC concentration is assumed to be low in comparison to G.

The following sections will present the CE, maximum error, and probable error for CE (PE_{CE}) equations. Later, engineering estimates will be given and the PE_{CE} 's for each of the protocols will be calculated and summarized.

Protocol 1a: Temporary Total Enclosure (TTE). A TTE is one that directs all the VOC emissions to the control device and to a fugitive exhaust duct. The success of this protocol lies in designing the TTE to contain the fugitive gas stream so that it can be measured with minimal effect on the normal flow patterns around the affected facility. One set of criteria for a TTE is given in Procedure TE.

The general approach for this protocol is as follows: (a) Determine the captured VOC emissions without the TTE to establish a baseline; (b) install the TTE and use the baseline from (a) to determine the effect of the TTE on the process; and (c) determine the captured VOC emissions (G_V) and the fugitive VOC emissions (F_V) with the TTE. The CE is calculated as follows:

$$CE = G_V / (G_V + F_V) \quad \text{Eq. 1}$$

The maximum error equation is (the subscripts have been omitted to simplify discussion and avoid tedious repetitions):

$$\Delta CE / CE = \left| \Delta G / G - \Delta G / (G + F) \right| + \left| \Delta F / (G + F) \right| \quad \text{Eq. 2}$$

Note that the negative sign between the first and second terms on the right side of the equation is kept because the first term is not independent of the second term, i.e., the signs of both terms must be the same. Therefore, the effect of errors in the measurement of G is somewhat diminished.

Equation 2 gives the maximum error that could occur, i.e., it adds all individual errors; it does not allow the errors to cancel each other.

However, the likelihood that the maximum error will occur is low. It is more reasonable to use the PE, which is calculated as the square root of the sum of squares of the individual measurement errors.

To estimate the uncertainty at various CE levels, Equation 2 can be rewritten in terms of PE and CE as follows:

$$PE_{CE} = \{[PE_G - PE_G G/(G + F)]^2 + [PE_F F/(G + F)]^2\}^{1/2} \quad \text{Eq. 3}$$

Since $G/(G + F) = CE$ and $F/(G + F) = (1 - CE)$ and assuming that $PE_G = PE_F$, then Equation 3 simplifies to:

$$PE_{CE} = 1.4 (1 - CE) PE_G \quad \text{Eq. 4}$$

Equation 4 shows that the measurement error sensitivity of this protocol is tempered by the CE level. At the 90 percent CE level, ± 10 percent measurement errors in both G and F will result in ± 1.4 percent uncertainty in CE. However, at the 50 percent CE level, ± 10 percent would introduce ± 7 percent uncertainty.

Protocol 1b: With and Without TTE. This protocol assumes that G measured with a TTE (without an exhaust fan) is equal to L. The general approach is as follows: (a) Determine the captured VOC emissions (G_{VO}) without the TTE; and (b) determine the captured VOC emissions (G_V) with the TTE. The CE is then calculated as:

$$CE = G_{VO}/G_V \quad \text{Eq. 5}$$

The maximum error equation for this protocol is:

$$\Delta CE/CE = |\Delta G_{VO}/G_{VO}| + |\Delta G_V/G_V| \quad \text{Eq. 6}$$

Because G_{VO} and G_V are independent measurements, their errors do not cancel each other. Assuming that the PE for both G_{VO} and G_V are equal, the PE_{CE} equation is:

$$PE_{CE} = 1.4 PE_G \quad \text{Eq. 7}$$

Equation 7 shows that this protocol is highly sensitive to measurement errors and should be used only after careful consideration of the errors in the measurements and the resultant uncertainty in CE. A ± 10 percent measurement errors in G, when it is measured with and without the TTE, will result in ± 14 percent uncertainty in CE.

Protocol 1c: Building as Enclosure. This protocol eliminates any uncertainties concerning the effect of the TTE on the CE. However, the presence of other VOC sources within the enclosure complicates matters. In addition, the number of exhaust points and the ability to measure the volumetric flows and concentrations at these points must be considered. Two options when using the building as an enclosure are discussed below:

Option A: Operate only affected facility. The first option is to shut down all other facilities so that only the affected facility is evaluated. The general approach is as follows: (a) Shut down all other sources of VOC within the building, but leave all exhaust fans on to maintain building ventilation balance; and (b) determine the fugitive VOC emissions from all exhaust points (F_g) and the captured VOC emissions (G). The CE equation for this protocol is:

$$CE = G/(G + F_g) \quad \text{Eq. 8}$$

This equation is identical in form to Protocol 1a and the same error analysis applies. However, in this protocol, PE_g can not be expected to equal PE_F . Thus, the PE_{CE} equation for Option A would then be:

$$PE_{CE} = (1 - CE) [PE_g^2 + PE_{Fg}^2]^{1/2} \quad \text{Eq. 9}$$

Again, notice that at the 90 percent CE level, ± 10 percent measurement errors in either G or in F introduces ± 1 percent uncertainties in CE. The effect of measurement errors on the uncertainties in CE are also similar for Option B.

Option B: Operate with and without affected facility. The second option is to test under two sets of conditions - one while the affected facility is shut down and all other facilities are operating, and the other while all facilities, including the affected facility, are operating. The F from the affected facility is then determined by difference, i.e., $F = F_w - F_{wo}$, where the subscripts "W" and "WO" refer to the conditions of "with" and "without" the affected facility operating, respectively.

The CE and maximum error equations for this protocol are:

$$CE = G/(G + F_w - F_{wo}) \quad \text{Eq. 10}$$

$$\begin{aligned} \Delta CE/CE = & \left| \Delta G/G - \Delta G/(G + F_w - F_{wo}) \right| \\ & + \left| (\Delta F_w)/(G + F_w - F_{wo}) \right| + \left| \Delta F_{wo}/(G + F_w - F_{wo}) \right| \end{aligned} \quad \text{Eq. 11}$$

The term, $\Delta G/G - \Delta G/(G + F_w - F_{wo})$, simplifies to $PE_g (1 - CE)$. By multiplying and dividing the second and third terms by the quantity $(F_w - F_{wo})$ and assuming that $F_{wo} = 0.8 F_w$, these terms simplify to $5 PE_{Fw}$ and $4 PE_{Fwo}$. Further assuming that $PE_{Fw} = PE_{Fwo} = PE_F$, the PE equation for CE can be written as:

$$PE_{CE} = (1 - CE) [PE_g^2 + 41 PE_F^2]^{1/2} \quad \text{Eq. 12}$$

Protocol 1d: Permanent Total Enclosure (PTE). A PTE is one that directs all VOC emissions to the control device. A set of specifications for a PTE is given in Procedure TE.

If a plant installs a PTE, it becomes an integral part of the affected facility and the CE can be assumed to be 100 percent, and a CE test is not needed. However, an overall efficiency (R) determination is still required.

The measurements for R are similar to that of the protocol with a temporary total enclosure (TTE). The overall efficiency (R), maximum error, and PE_R equations are as follows:

$$R = (G - E)/G \quad \text{Eq. 13}$$

$$\Delta R/R = |\Delta G/(G - E) - \Delta G/G| + |\Delta E/(G - E)| \quad \text{Eq. 14}$$

$$PE_R = (1/R - 1) [PE_G^2 + PE_E^2]^{1/2} \quad \text{Eq. 15}$$

where E = VOC emissions leaving the control device. The measurement error sensitivities are similar to Option A of Protocol 1c.

NOTE: If all the fugitive VOC emissions from a building are directed to a control device and the building meets the specifications for a PTE, the building will be considered a PTE and the CE of all facilities within the building can be assumed to be 100 percent.

2. LIQUID/GAS PROTOCOLS

The liquid/gas approach is called such because it involves liquid phase measurements for L and gas phase measurements for G or F. The major concern with this approach is the correlation of liquid phase measurements of L with the gas phase measurements of G or F. The various approaches used for this correlation will be discussed later.

Since these protocols closely follow the gas/gas approach, the CE, maximum error, and PE_{CE} equations are presented with little discussion.

Protocol 2a: TTE. Rather than measuring G directly, it can be determined by measuring F using a TTE and determining G by difference, i.e., $G = L - F$. The CE is calculated as:

$$CE = (L - F)/L \quad \text{Eq. 16}$$

The maximum error and PE_{CE} equations are:

$$\Delta CE/CE = |\Delta L/(L - F) - \Delta L/L| + |\Delta F/(L - F)| \quad \text{Eq. 17}$$

$$PE_{CE} = (1/CE - 1) [PE_L^2 + PE_F^2]^{1/2} \quad \text{Eq. 18}$$

Notice that large measurement errors in L or in F are diminished by high CE levels. The measurement error sensitivities are similar to that of Option A of Protocol 1c.

Protocol 2b: Direct Measurements. In this protocol, both L and G are measured directly. The CE is calculated as follows:

$$CE = G/L \quad \text{Eq. 19}$$

The maximum error and PE_{CE} equations for this protocol are:

$$\Delta CE/CE = |\Delta G/G| + |\Delta L/L| \quad \text{Eq. 20}$$

$$PE_{CE} = [PE_G^2 + PE_L^2]^{1/2} \quad \text{Eq. 21}$$

This protocol is highly sensitive to measurement errors and should be used only after careful consideration of the errors in the measurements and the resultant uncertainty in CE. A ± 10 percent measurement error will introduce ± 10 percent uncertainty in the CE result.

Protocol 2c: Building as Enclosure. The two options under Protocol 1c are also applicable here. The measurement error sensitivities are similar to that of Protocol 1c.

Option A: Operate only affected facility within enclosure.

$$CE = (L - F_B)/L \quad \text{Eq. 22}$$

$$\Delta CE/CE = |\Delta L/(L - F_B) - \Delta L/L| + |\Delta F/(L - F_B)| \quad \text{Eq. 23}$$

$$PE_{CE} = (1/CE - 1) [PE_L^2 + PE_{FB}^2]^{1/2} \quad \text{Eq. 24}$$

Option B: Operate with and without affected facility.

$$CE = (L - F_V + F_{V0})/L \quad \text{Eq. 25}$$

$$\Delta CE/CE = |\Delta L/(L - F_V + F_{V0}) - \Delta L/L| + |\Delta F_V/(L - F_V + F_{V0})| + |\Delta F_{V0}/(L - F_V + F_{V0})| \quad \text{Eq. 26}$$

$$PE_{CE} = (1/CE - 1)(PE_L^2 + 41 PE_{FB}^2)^{1/2} \quad \text{Eq. 27}$$

Protocol 2d: Permanent Total Enclosure.

$$R = (L - E)/L \quad \text{Eq. 28}$$

$$\Delta R/R = |\Delta L/(L - E) - \Delta L/L| + |\Delta E/(L - E)| \quad \text{Eq. 29}$$

$$PE_R = (1/R - 1) [PE_L^2 + PE_E^2]^{1/2} \quad \text{Eq. 30}$$

where E = VOC emissions leaving the control device. As seen from Equation 30, the measurement error sensitivities are similar to that of Protocol 1d.

3. LIQUID/LIQUID PROTOCOL

Protocol 3: Liquid/Liquid. When a plant uses a carbon adsorber to control VOC emissions and recovers the collected VOC, an explicit measurement of CE is not required. A liquid/liquid material balance can be used to determine overall control efficiency by directly comparing the input solvent

to the recovered solvent. The general procedure for performing a liquid/liquid material balance is described in 40 CFR 60.433.

The overall efficiency (R), maximum error, and PE_R equations for this protocol are:

$$R = M_r / L \quad \text{Eq. 31}$$

$$\Delta R/R = |\Delta M_r/M_r| + |\Delta L/L| \quad \text{Eq. 32}$$

where M_r is the amount of VOC recovered.

$$PE_R = [PE_M^2 + PE_L^2]^{1/2} \quad \text{Eq. 33}$$

Equation 33 shows that this protocol is highly sensitive to measurement errors in L and in M_r .

ENGINEERING ESTIMATES OF PROBABLE ERRORS

In order to compute the magnitude of the PE in the CE determination, the magnitude of the errors of the components that make up the determination must be known or estimated. The PE's vary with individuals and with individual testing firms and are generally not known. Therefore, engineering estimates will be used in this guideline. Although the PE's for the CE are calculated using estimates that may not represent the actual conditions, the results may be used to indicate the relative merits of the various protocols. The engineering estimates of the various measurements are summarized in Table I.

Several of the protocols involve measuring volumetric flow rates (Q) in confined and unconfined gas streams and measuring the gaseous VOC concentrations. The PE for measuring Q in confined gas streams is estimated at ± 5.5 percent. This figure applies to the following measurements: Q_G , Q_F , and Q_E , where the subscripts "G," "F," and "E" refer to the captured, fugitive, and emission (from control device) gas streams, respectively.

For unconfined gas streams, such as from building enclosures, the PE for measuring Q is expected to be larger than that for measuring Q from a confined gas stream because of the less than ideal conditions for flow measurements and the greater number of emission points. The PE in measuring Q_{FB} is estimated to be ± 10.0 percent, where the subscript "FB" refers to the fugitive gas stream from the building enclosure.

The PE for measuring the VOC concentration (C) in confined or unconfined gas streams with an FIA is estimated to be ± 5.0 percent. This estimate applies to the measurements of C_G , C_F , and C_{FB} . The PE for measuring C after an incinerator device according to Method 25 is estimated to be ± 20.0 percent.

For the liquid mass VOC measurements, the PE is estimated at ± 2.0 percent. This estimate applies to the measurements of the liquid mass of VOC recovered from the adsorption control device (M_r) and the liquid mass input of VOC containing material (W).

In the liquid/gas protocols, the major concern is the correlation of L with the gas phase G or F, whichever is measured. A technique is described in Procedure L whereby the VOC in the liquid is evaporated into the gas phase and a flame ionization analyzer (FIA) is used to determine the VOC response per unit mass of VOC containing liquid. In this manner, the exact composition of the VOC in the liquids need not be determined and errors associated with the response of the VOC on the FIA are somewhat cancelled. The repeatability or the accuracy of this technique, however, has not been evaluated, but is estimated to be ± 12.0 percent.

When the composition of the VOC liquid input is known and the number of components is few, Method 18 plus appropriate FIA responses may also be an acceptable analytical technique for measurement of gaseous emissions for either C_G , C_F , or C_{FB} . The PE of this measurement is also estimated to be ± 12.0 percent.

The engineering estimates of the component measurements are summarized in Table I. Based on these estimates, the PE's for the various determinations were calculated using the square root of the sums of squares. These also are summarized in Table I.

TABLE I
SUMMARY OF PROBABLE ERRORS USED IN THIS GUIDELINE

Calculated PE *	Estimated PE	
$PE_G = \pm 7.4$	$Q_G = \pm 5.5$	$C_G = \pm 5.0$
$PE_F = \pm 7.4$	$Q_F = \pm 5.5$	$C_F = \pm 5.0$
$PE_{FB} = \pm 11.2$	$Q_{FB} = \pm 10.0$	$C_{FB} = \pm 5.0$
$PE_L = \pm 12.2$	$W = \pm 2.0$	$V = \pm 12.0$
$PE_M = \pm 2.0$	$W = \pm 2.0$	
$PE_E = \pm 20.7$	$Q_E = \pm 5.5$	$C_E = \pm 20.0$

*NOTE: Calculated based upon the estimated PE's

CALCULATED PROBABLE ERRORS FOR THE VARIOUS PROTOCOLS

Based on the calculated PE's from Table I, the PE's for the various protocols were calculated. The CE and PE equations and PE_{CE} for each of the protocols are summarized in Table II. The PE_{CE} 's are based on a 90 percent CE level. The PE for Protocols 1d, 2d, and 3 are based on the overall efficiency and should not be confused with the PE's given for CE only.

TABLE II
SUMMARY OF PROBABLE ERRORS AT 90 PERCENT CE LEVEL*

Protocol	CE Equations	PE Equations	PE _{CE}
GAS/GAS			
1a - TTE	$G_w/(G_w + F_w)$	$1.4 (1 - CE) PE_G$	± 1.1
1b - W/NO TTE	G_{w0}/G_w	$1.4 PE_G$	± 10.5
1c - Building Option A	$G/(G + F_B)$	$(1 - CE)[PE_G^2 + PE_F^2]^{1/2}$	± 1.3
Option B	$G/(G + F_w - F_{w0})$	$(1 - CE)[PE_G^2 + 41 PE_F^2]^{1/2}$	± 7.2
1d - PTE	$R = (G - E)/G$	$(1/R - 1)[PE_G^2 + PE_E^2]^{1/2}$	$\pm 2.4^*$
LIQUID/GAS			
2a - TTE	$(L - F)/L$	$(1/CE - 1)[PE_L^2 + PE_F^2]^{1/2}$	± 1.6
2b - Direct	G/L	$[PE_G^2 + PE_L^2]^{1/2}$	± 14.3
2c - Building Option A	$(L - F_B)/L$	$(1/CE - 1)[PE_L^2 + PE_{FB}^2]^{1/2}$	± 1.8
Option B	$(L - F_w + F_{w0})/L$	$(1/CE - 1)[PE_L^2 + 41 PE_{FB}^2]^{1/2}$	± 8.1
2d - PTE	$R = (L - E)/L$	$(1/R - 1)[PE_L^2 + PE_E^2]^{1/2}$	$\pm 2.7^*$
LIQUID/LIQUID			
3	$R = M_w/L$	$[PE_M^2 + PE_L^2]^{1/2}$	$\pm 12.3^*$
<p>* NOTE: Protocols 1d, 2d, and 3 are based on overall reduction efficiency. The PE_{CE}'s for the other protocols will be higher than shown if destruction efficiency PE's are included.</p>			

Based solely on the PE for each protocol, a suggested order in which the protocols should be considered is given in Table III. The limitations and rationale follow the table.

**TABLE III
SUGGESTED ORDER OF CONSIDERATION**

Order	Protocol	PE _{CE}
I	Protocol 1d or 2d - PTE	2.7*
II	Option A of Protocol 1c or 2c - Building as enclosure	1.8**
III	Protocol 1a or 2a - TTE	1.6**
IV	Protocol 3 - Liquid/liquid	12.3*

* Based on overall efficiency, not capture efficiency.

** Based on 90% capture efficiency.

NOTE: Other protocols will be considered on a case by case basis.

I. Protocol 1d or 2d - PTE. The protocols that incorporate a PTE should be considered as the best solution to the measurement of CE. A PTE is an integral part of the process and, therefore, the CE of the affected facility would always be 100 percent. As a result, better overall efficiency tests can be conducted for a variety of process conditions.

II. Option A of Protocol 1c or 2c - Building as Enclosure. Using the building as an enclosure has the advantage of eliminating any uncertainties concerning the effect of a TTE on the CE. The biggest disadvantage with these protocols is the loss of production from all the other facilities. Before these protocols are used, the following must be determined:

A. Are the exhaust points from the building accessible? Can the flow rates and VOC concentrations be measured?

B. Are the number of exhaust points such that the fugitive emission rate be measured within a reasonable length of time?

C. Would the VOC concentration from the exhaust points represent only the affected facility, and not fugitive VOC from other sources?

D. Is the loss of production from all the other facilities tolerable?

If the answer to any of the above questions is negative, then these protocols should not be used.

III. Protocols 1a or 2a - TTE. As mentioned earlier, the success of these protocols depends on designing the TTE to contain the fugitive gas stream so that it can be measured with minimal effect on the normal flow patterns around the affected facility or on the amount of the fugitive emissions.

If the TTE is incorrectly designed, it may introduce a bias. Each percent bias in G introduces one percent bias in CE. To minimize the bias, one approach is to establish a baseline concentration and flow rate of G without the TTE and to match this baseline after the TTE is installed. This approach, however, requires a relatively constant source. If the concentration inside the enclosure increases above the background level, the measured CE will also be biased high. No estimates have been made as to the magnitude of the bias.

Other factors that should be considered when selecting this protocol are the cost of the TTE (including the fugitive VOC exhaust fan), effect, if any, of the TTE on the quality of the product, loss in production due to down time, and safety and health hazards due to the confined nature of the TTE.

IV. Protocol 3 - Liquid/Liquid. This protocol is limited to processes that recover the VOC.

PROCESS AND METHOD CONSIDERATIONS

In the following discussion, the effect of process and method considerations will be discussed only for Protocols 1a (Gas/Gas with TTE), 2b (Liquid/Gas Direct Measurements), and 3 (Liquid/Liquid).

1. VOC remaining in product or emitted downstream (e.g., process wastewater, scrapped process feed) of affected facility.

Treatment of this situation depends on whether the VOC remaining in the product or emitted downstream (P) are considered to be fugitive emissions. If P is considered to be fugitive emissions, then the measurement of F would be biased low, i.e., rather than the total fugitive being equal to (F + P), only F is measured. If F' is the true fugitive emissions (where $F' = F + P$), then the CE equations are as follows:

$$\text{Protocol 1a: } CE = G/(G + F')$$

$$\text{Protocol 2b: } CE = G/L$$

$$\text{Protocol 3 : } R = M/L$$

Since F is not measured directly in Protocols 2b and 3, P will not affect the determination of CE or R.

Consider the following two examples: (Example 1) L = 100, G = 80, F = 10, and P = 10; and (Example 2) L = 100, G = 60, F = 10, P = 30. The correct CE are as follows:

$$\text{Example 1: } CE = 80/(80 + 10 + 10) \text{ or } 80/100 = 80.0 \text{ percent}$$

$$\text{Example 2: } CE = 60/(60 + 10 + 30) \text{ or } 60/100 = 60.0 \text{ percent}$$

The calculated CE for the examples are:

Example 1:

Protocol 1a: $CE = G/(G + F) = 80/(80 + 10) = 88.9$ percent.

Protocol 2b: $CE = G/L = 80/100 = 80.0$ percent.

Example 2:

Protocol 1a: $CE = 60/(60 + 10) = 85.7$ percent.

Protocol 2b: $CE = 60/100 = 60.0$ percent.

Each percent P introduces a positive bias in CE of about 0.9 percent CE (note this is absolute percent). In Example 1, a P of 10 percent raised the CE from 80.0 to 88.9 ($8.9/10 = 0.89$). In Example 2, a P of 30 percent raised the CE from 60 to 85.7 ($25.7/30 = 0.86$).

If P is not considered to be fugitive emissions, then the amount of L measured will be biased high by the amount of P, i.e., the true $L' = (L - P)$. The correct CE for Example 1 above is $80/90$ or 88.9 percent. For Example 2, the correct CE is $60/70$ or 85.7 percent. Since L is not measured in Protocol 1a, its calculated CE would be correct as seen in the above calculations, whereas Protocols 2b and 3 would give negative biases in the CE. Each percent P introduces a negative bias in CE of about 0.9 percent CE.

2. Facilities using exhaust recirculation or direct fired ovens.

In facilities using exhaust recirculation or direct fired ovens, some of the VOC in the captured VOC emission stream will be oxidized and the measurement of G would be biased low by the amount of VOC destroyed (D). The true G' would be equal to $(G + D)$, i.e., the correct CE equations are as follows:

Protocol 1a: $CE = (G')/(G + F)$

Protocol 2b: $CE = (G')/L$

Protocol 3: $R = (M_r')/L$, where $M_r' = M_r + D$

As seen from these equations, Protocols 2b and 3 are most affected by this occurrence. Protocol 1a is much less affected. Consider the following two examples: (Example 1) $L = 100$, $G = 80$, $F = 10$, and $D = 10$; and (Example 2) $L = 100$, $G = 60$, $F = 10$, $D = 30$. The correct CE is 90.0 percent for both examples. The calculated CE for the examples are:

Example 1:

Protocol 1a: $CE = G/(G + F) = 80/(80 + 10) = 88.9$ percent.

Protocol 2b: $CE = G/L = 80/100 = 80.0$ percent.

Example 2:

Protocol 1a: $CE = 60/(60 + 10) = 85.7$ percent.

Protocol 2b: $CE = 60/100 = 60.0$ percent.

The R determined by Protocol 3 would be biased low because the amount of VOC recovered will not reflect the amount of VOC destroyed. In Protocols 2b and 3, each percent D introduces about 1 percent negative bias in the CE or R. In Protocol 1a, a 10 percent bias introduces about 1 percent bias in CE at the 90 percent CE level.

3. Presence of particulate organic aerosols.

Particulate matter organics VOC (PO) in the captured VOC emission stream will cause the measurement of G to be biased high by the amount present. Their effect would be similar to that discussed in (2) above, except the CE will have a positive bias. Protocol 3 will not be affected by PO. The CE equations should be as follows:

$$\text{Protocol 1a: } CE = (G + PO)/(G + PO + F)$$

$$\text{Protocol 2b: } CE = (G + PO)/L$$

$$\text{Protocol 3: } R = M_r/L$$

4. Occurrence of cure volatiles.

Cure volatiles (CV) in the captured VOC emission stream will be included as G. Letting G' or M_r' be the amount of VOC not including CV, the CE equations would be as follows:

$$\text{Protocol 1a: } CE = (G' + CV)/(G' + CV + F)$$

$$\text{Protocol 2b: } CE = (G' + CV)/L$$

$$\text{Protocol 3: } R = (M_r' + CV)/L$$

The correctness of the CE depends on the measurement of L. If the method used for determining the VOC content of the liquid input measures CV, then the measurement of G would correctly reflect the quantity ($G' + CV$) or ($M_r' + CV$) and all three protocols would provide the correct CE.

However, if the determination of L does not include CV, then the measured G or M_r would not be correct. Consider the following two examples: (Example 1) $L = 100$, $G' = 90$, $CV = 10$, and $F = 10$; and (Example 2) $L = 100$, $G' = 90$, $CV = 20$, and $F = 10$. The correct CE would be as follows:

$$\text{Example 1: } CE = (90 + 10)/(100 + 10) = 90.9 \text{ percent}$$

$$\text{Example 2: } CE = (90 + 20)/(100 + 20) = 91.7 \text{ percent}$$

The calculated CE for the examples are:

Example 1:

Protocol 1a: $CE = G/(G + F) = (90 + 10)/(90 + 10 + 10) = 90.9$ percent.

Protocol 2b: $CE = G/L = (90 + 10)/100 = 100.0$ percent.

Example 2:

Protocol 1a: $CE = (90 + 20)/(90 + 20 + 10) = 91.7$ percent.

Protocol 2b: $CE = (90 + 20)/100 = 110.0$ percent.

As can be seen, Protocol 1a gives the correct result, whereas Protocol 2b gives positively biased CE's. Each percent CV increases the CE by one percent CE. Protocol 3 is similarly affected as with Protocol 2b, since the recovered VOC would include CV.

5. Coatings that contain solvents with different volatilities.

The F stream may contain a higher proportion of the more volatile solvents. If an FIA is used, the measurement of F may not reflect the actual amount of VOC in the F or G stream because of the different response factors. If this is the case, Method 18, alone or along with appropriate response factors of an FIA, may need to be used to characterize F or G.

**VOC CAPTURE EFFICIENCY
Procedure L - VOC Input**

1. INTRODUCTION

1.1 Applicability. This procedure is applicable for determining the input of volatile organic compounds (VOC). It is intended to be used as a segment in the development of liquid/gas protocols for determining VOC capture efficiency (CE) for surface coating and printing operations.

1.2 Principle. The amount of VOC introduced to the process (L) is the sum of the products of the weight (W) of each VOC containing liquid (ink, paint, solvent, etc.) used and its VOC content (V). A sample of each VOC containing liquid is analyzed with a flame ionization analyzer (FIA) to determine V.

1.3 Estimated Measurement Uncertainty. The measurement uncertainties are estimated for each VOC containing liquid as follows: $W = \pm 2$ percent and $V = \pm 12$ percent. Based on these numbers, the probable uncertainty for L is estimated at about ± 12.2 percent for each VOC containing liquid.

1.4 Sampling Requirements. A capture efficiency test shall consist of at least three sampling runs. The sampling time for each run should be at least 8 hours, unless otherwise approved.

1.5 Note. This procedure is often applied in highly explosive areas. Caution and care should be exercised in choice of equipment and installation. Mention of trade names or company products does not constitute endorsement. All gas concentrations (percent, ppm) are by volume, unless otherwise noted.

2. APPARATUS AND REAGENTS

2.1 Liquid Weight.

2.1.1 Balances/Digital Scales. To weigh drums of VOC containing liquids to ± 0.05 percent of the drum weight or ± 1.0 percent of the total weight of VOC containing material used during a sample run, whichever is less.

2.1.2 Volume Measurement Apparatus (Alternative). Volume meters, flow meters, density measurement equipment, etc., as needed to achieve same accuracy as direct weight measurements.

2.2 VOC Content (Flame Ionization Analyzer Technique). The liquid sample analysis system is shown in Figures 1 and 2. The following equipment is required:

2.2.1 Sample Collection Can. An appropriately sized metal can to be used to collect VOC containing materials. The can must be constructed in such a way that it can be grounded to the coating container.

2.2.2 Needle Valves. To control gas flow.

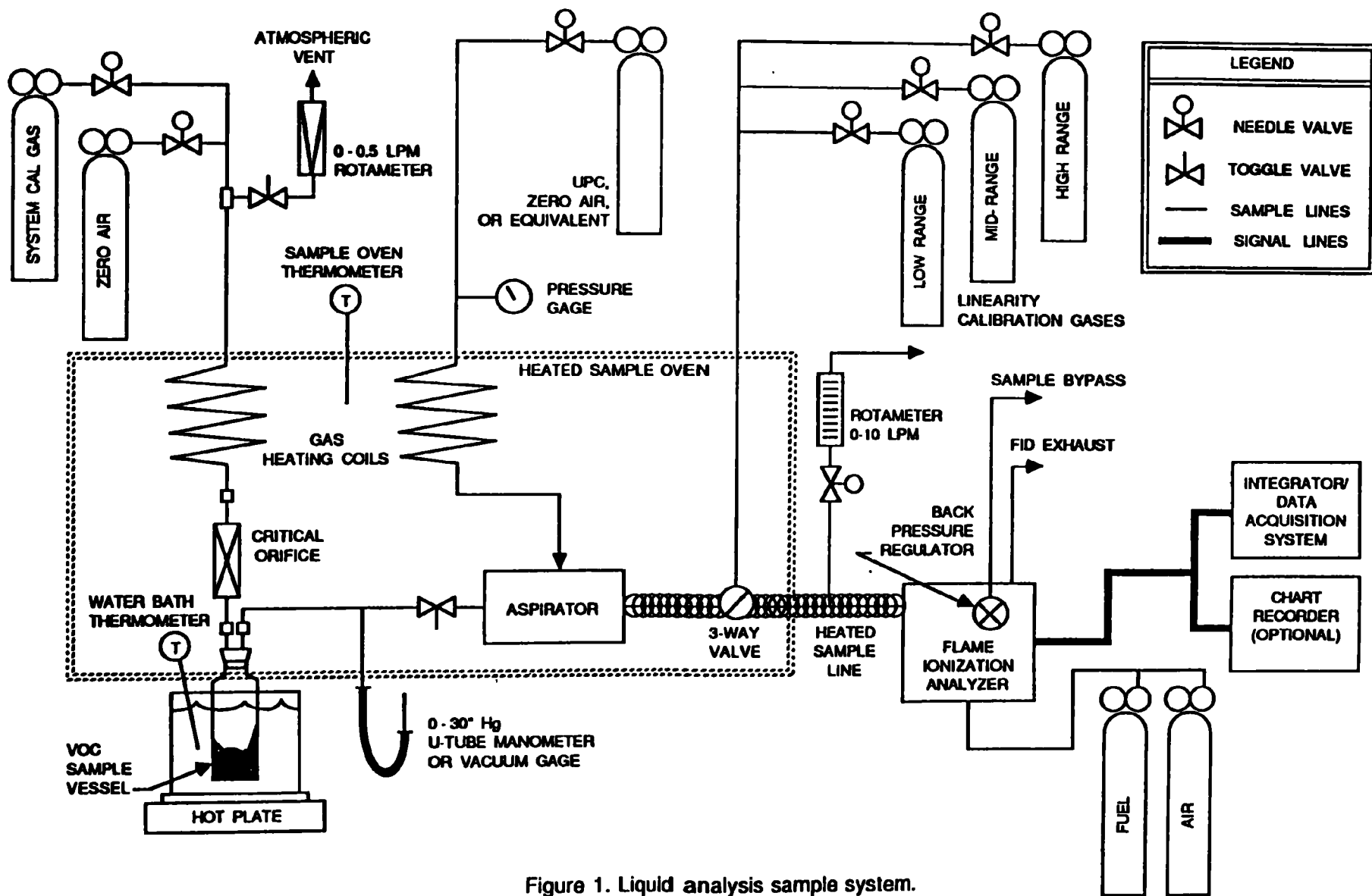


Figure 1. Liquid analysis sample system.

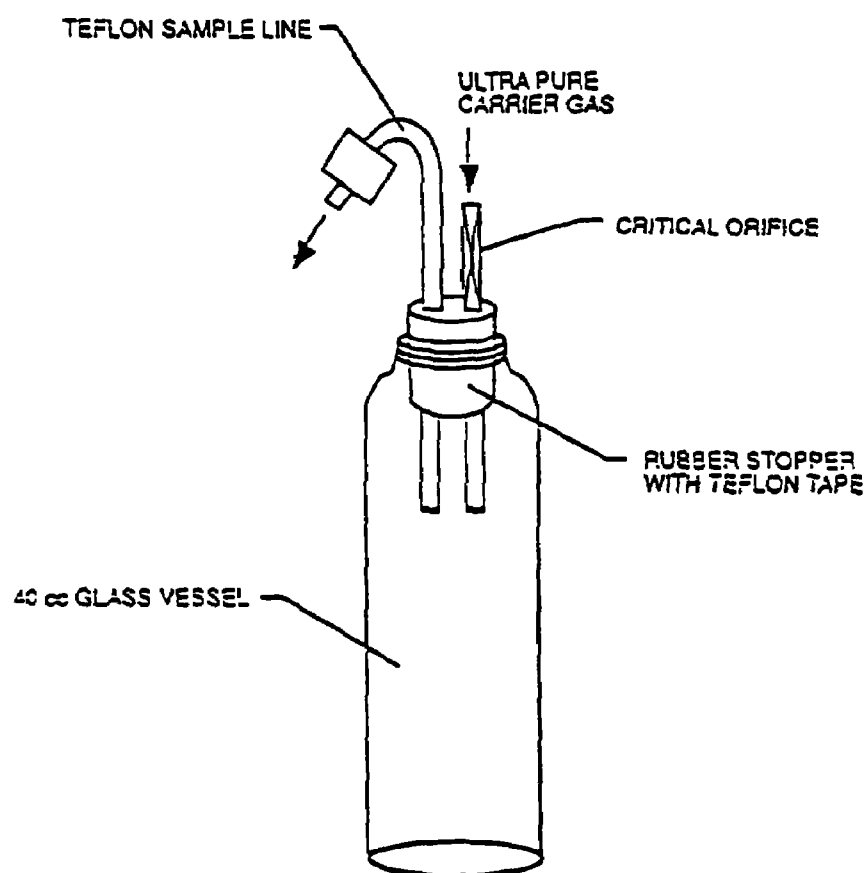


Figure 2. VOC sampling vessel.

2.2.3 Regulators. For carrier gas and calibration gas cylinders.

2.2.4 Tubing. Teflon or stainless steel tubing with diameters and lengths determined by connection requirements of equipment. The tubing between the sample oven outlet and the FIA shall be heated to maintain a temperature of $120 \pm 5^{\circ}\text{C}$.

2.2.5 Atmospheric Vent. A tee and 0- to 0.5-liter/min rotameter placed in the sampling line between the carrier gas cylinder and the VOC sample vessel to release the excess carrier gas. A toggle valve placed between the tee and the rotameter facilitates leak tests of the analysis system.

2.2.6 Thermometer. Capable of measuring the temperature of the hot water bath to within 1°C .

2.2.7 Sample Oven. Heated enclosure, containing calibration gas coil heaters, critical orifice, aspirator, and other liquid sample analysis components, capable of maintaining a temperature of $120 \pm 5^{\circ}\text{C}$.

2.2.8 Gas Coil Heaters. Sufficient lengths of stainless steel or Teflon tubing to allow zero and calibration gases to be heated to the sample oven temperature before entering the critical orifice or aspirator.

2.2.9 Water Bath. Capable of heating and maintaining a sample vessel temperature of $100 \pm 5^{\circ}\text{C}$.

2.2.10 Analytical Balance. To measure ± 0.001 g.

2.2.11 Disposable Syringes. 2-cc or 5-cc.

2.2.12 Sample Vessel. Glass, 40-ml septum vial. A separate vessel is needed for each sample.

2.2.13 Rubber Stopper. Two-hole stopper to accommodate 3.2-mm (1/8-in.) Teflon tubing, appropriately sized to fit the opening of the sample vessel. The rubber stopper should be wrapped in Teflon tape to provide a tighter seal and to prevent any reaction of the sample with the rubber stopper. Alternatively, any leak-free closure fabricated of non-reactive materials and accommodating the necessary tubing fittings may be used.

2.2.14 Critical Orifices. Calibrated critical orifices capable of providing constant flow rates from 50 to 250 ml/min at known pressure drops. Sapphire orifice assemblies (available from O'Keefe Controls Company) and glass capillary tubing have been found to be adequate for this application.

2.2.15 Vacuum Gauge. 0- to 760-mm (0- to 30-in.) Hg U-Tube manometer or vacuum gauge.

2.2.16 Pressure Gauge. Bourdon gauge capable of measuring the maximum air pressure at the aspirator inlet (e.g., 100 psig).

2.2.17 Aspirator. A device capable of generating sufficient vacuum at the sample vessel to create critical flow through the calibrated orifice when

sufficient air pressure is present at the aspirator inlet. The aspirator must also provide sufficient sample pressure to operate the FIA. The sample is also mixed with the dilution gas within the aspirator.

2.2.18 Soap Bubble Meter. Of an appropriate size to calibrate the critical orifices in the system.

2.2.19 Organic Concentration Analyzer. An FIA with a span value of 1.5 times the expected concentration as propane; however other span values may be used if it can be demonstrated that they would provide more accurate measurements. The system shall be capable of meeting or exceeding the following specifications:

2.2.19.1 Zero Drift. Less than ± 3 percent of the span value.

2.2.19.2 Calibration Drift. Less than ± 3 percent of span value.

2.2.19.3 Calibration Error. Less than ± 5 percent of the calibration gas value.

2.2.20 Integrator/Data Acquisition System. An analog or digital device or computerized data acquisition system used to integrate the FIA response or compute the average response and record measurement data. The minimum data sampling frequency for computing average or integrated values is one measurement value every 5 seconds. The device shall be capable of recording average values at least once per minute.

2.2.21 Chart Recorder (Optional). A chart recorder or similar device is recommended to provide a continuous analog display of the measurement results during the liquid sample analysis.

2.2.22 Calibration and Other Gases. Gases used for calibration, fuel, and combustion air (if required) are contained in compressed gas cylinders. All calibration gases shall be traceable to NIST standards and shall be certified by the manufacturer to ± 1 percent of the tag value. Additionally, the manufacturer of the cylinder should provide a recommended shelf life for each calibration gas cylinder over which the concentration does not change more than ± 2 percent from the certified value. For calibration gas values not generally available, alternative methods for preparing calibration gas mixtures, such as dilution systems, may be used with prior approval.

2.2.22.1 Fuel. A 40 percent H_2 /60 percent He or 40 percent H_2 /60 percent N_2 gas mixture is recommended to avoid an oxygen synergism effect that reportedly occurs when oxygen concentration varies significantly from a mean value.

2.2.22.2 Carrier Gas. High purity air with less than 1 ppm of organic material (as propane) or less than 0.1 percent of the span value, whichever is greater.

2.2.22.3 FIA Linearity Calibration Gases. Low-, mid-, and high-range gas mixture standards with nominal propane concentrations of 20-30, 45-55, and 70-80 percent of the span value in air, respectively. Other calibration values and other span values may be used if it can be shown that more accurate measurements would be achieved.

2.2.22.4 System Calibration Gas. Gas mixture standard containing propane in air, approximating the undiluted VOC concentration expected for the liquid samples.

3. DETERMINATION OF LIQUID INPUT WEIGHT

3.1 Weight Difference. Determine the amount of material introduced to the process as the weight difference of the feed material before and after each sampling run. In determining the total VOC containing liquid usage, account for: (a) the initial (beginning) VOC containing liquid mixture; (b) any solvent added during the test run; (c) any coating added during the test run; and (d) any residual VOC containing liquid mixture remaining at the end of the sample run.

3.1.1 Identify all points where VOC containing liquids are introduced to the process. To obtain an accurate measurement of VOC containing liquids, start with an empty fountain (if applicable). After completing the run, drain the liquid in the fountain back into the liquid drum (if possible), and weigh the drum again. Weigh the VOC containing liquids to ± 0.5 percent of the total weight (full) or ± 0.1 percent of the total weight of VOC containing liquid used during the sample run, whichever is less. If the residual liquid cannot be returned to the drum, drain the fountain into a preweighed empty drum to determine the final weight of the liquid.

3.1.2 If it is not possible to obtain a measurement of a single representative mixture, then weigh the various components separately (e.g., if solvent is added during the sampling run, weigh the solvent before it is added to the mixture). If a fresh drum of VOC containing liquid is needed during the run, then weigh both the empty drum and fresh drum.

3.2 Volume Measurement (Alternative). If direct weight measurements are not feasible, the tester may use volume meters and flow rate meters (and density measurements) to determine the weight of liquids used if it can be demonstrated that the technique produces results equivalent to the direct weight measurements. If a single representative mixture cannot be measured, measure the components separately.

4. DETERMINATION OF VOC CONTENT IN INPUT LIQUIDS

4.1 Collection of Liquid Samples.

4.1.1 Collect a 100-ml or larger sample of the VOC containing liquid mixture at each application location at the beginning and end of each test run. A separate sample should be taken of each VOC containing liquid added to the application mixture during the test run. If a fresh drum is needed during the sampling run, then obtain a sample from the fresh drum.

4.1.2 When collecting the sample, ground the sample container to the coating drum. Fill the sample container as close to the rim as possible to minimize the amount of headspace.

4.1.3 After the sample is collected, seal the container so the sample cannot leak out or evaporate.

4.1.4 Label the container to identify clearly the contents.

4.2 Liquid Sample VOC Content.

4.2.1 Assemble the liquid VOC content analysis system as shown in Figure 1.

4.2.2 Permanently identify all of the critical orifices that may be used. Calibrate each critical orifice under the expected operating conditions (i.e., sample vacuum and temperature) against a volume meter as described in Section 5.3.

4.2.3 Label and tare the sample vessels (including the stoppers and caps) and the syringes.

4.2.4 Install an empty sample vessel and perform a leak test of the system. Close the carrier gas valve and atmospheric vent and evacuate the sample vessel to 250 mm (10 in.) Hg absolute or less using the aspirator. Close the toggle valve at the inlet to the aspirator and observe the vacuum for at least one minute. If there is any change in the sample pressure, release the vacuum, adjust or repair the apparatus as necessary and repeat the leak test.

4.2.5 Perform the analyzer calibration and linearity checks according to the procedure in Section 5.1. Record the responses to each of the calibration gases and the back-pressure setting of the FIA.

4.2.6 Establish the appropriate dilution ratio by adjusting the aspirator air supply or substituting critical orifices. Operate the aspirator at a vacuum of at least 25 mm (1 in.) Hg greater than the vacuum necessary to achieve critical flow. Select the dilution ratio so that the maximum response of the FIA to the sample does not exceed the high-range calibration gas.

4.2.7 Perform system calibration checks at two levels by introducing compressed gases at the inlet to the sample vessel while the aspirator and dilution devices are operating. Perform these checks using the carrier gas (zero concentration) and the system calibration gas. If the response to the carrier gas exceeds ± 0.5 percent of span, clean or repair the apparatus and repeat the check. Adjust the dilution ratio as necessary to achieve the correct response to the upscale check, but do not adjust the analyzer calibration. Record the identification of the orifice, aspirator air supply pressure, FIA back-pressure, and the responses of the FIA to the carrier and system calibration gases.

4.2.8 After completing the above checks, inject the system calibration gas for approximately 10 minutes. Time the exact duration of the gas injection using a stopwatch. Determine the area under the FIA response curve and calculate the system response factor based on the sample gas flow rate, gas concentration, and the duration of the injection as compared to the integrated response using Equations 2 and 3.

4.2.9 Verify that the sample oven and sample line temperatures are $120 \pm 5^{\circ}\text{C}$ and that the water bath temperature is $100^{\circ} \pm 5^{\circ}\text{C}$.

4.2.10 Fill a tared syringe with approximately 1 g of the VOC containing liquid and weigh it. Transfer the liquid to a tared sample vessel. Plug the sample vessel to minimize sample loss. Weigh the sample vessel containing the liquid to determine the amount of sample actually received. Also, as a quality control check, weigh the empty syringe to determine the amount of material delivered. The two coating sample weights should agree within ± 0.02 g. If not, repeat the procedure until an acceptable sample is obtained.

4.2.11 Connect the vessel to the analysis system. Adjust the aspirator supply pressure to the correct value. Open the valve on the carrier gas supply to the sample vessel and adjust it to provide a slight excess flow to the atmospheric vent. As soon as the initial response of the FIA begins to decrease, immerse the sample vessel in the water bath. (Applying heat to the sample vessel too soon may cause the FID response to exceed the calibrated range of the instrument, and thus invalidate the analysis.)

4.2.12 Continuously measure and record the response of the FIA until all of the volatile material has been evaporated from the sample and the instrument response has returned to the baseline (i.e., response less than 0.5 percent of the span value. Observe the aspirator supply pressure, FIA back-pressure, atmospheric vent, and other system operating parameters during the run; repeat the analysis procedure if any of these parameters deviate from the values established during the system calibration checks in Section 4.2.7. Integrate the area under the FIA response curve, or determine the average concentration response and the duration of sample analysis.

4.2.13 After the sample has been completed, repeat the system calibration checks in Section 4.2.7 before any adjustments to the FIA or measurement system are made. If the zero or calibration drift exceeds ± 3 percent of the span value, discard the result and repeat the analysis. If the drift check results are acceptable, calculate the VOC content of the sample using the equations in Section 7.

5. CALIBRATION AND QUALITY ASSURANCE

5.1 FIA Calibration and Linearity Check. Make necessary adjustments to the air and fuel supplies for the FIA and ignite the burner. Allow the FIA to warm up for the period recommended by the manufacturer. Inject a calibration gas into the measurement system and adjust the back-pressure regulator to the value required to achieve the flow rates specified by the manufacturer. Inject the zero- and the high-range calibration gases and adjust the analyzer calibration to provide the proper responses. Inject the low- and mid-range gases and record the responses of the measurement system. The calibration and linearity of the system are acceptable if the responses for all four gases are within 5 percent of the respective gas values. If the performance of the system is not acceptable, repair or adjust the system and repeat the linearity check. Conduct a calibration and linearity check after assembling the analysis system and after a major change is made to the system.

5.2 Systems Drift Checks. Select the calibration gas that most closely approximates the concentration of the captured emissions for conducting the drift checks. Introduce the zero and calibration gas at the calibration valve assembly and verify that the appropriate gas flow rate and pressure are present at the FIA. Record the measurement system responses to the zero and calibration gases. The performance of the system is acceptable if the measurement system responses are within 3 percent of the span value. Conduct the system drift checks at the beginning and end of each day.

5.3 Critical Orifice Calibration.

5.3.1 Each critical orifice must be calibrated at the specific operating conditions that it will be used. Therefore, assemble all components of the liquid sample analysis system as shown in Figure 3. A stopwatch is also required.

5.3.2 Turn on the sample oven, sample line, and water bath heaters and allow the system to reach the proper operating temperature. Adjust the aspirator to a vacuum of 380 mm (15 in.) Hg vacuum. Measure the time required for one soap bubble to move a known distance and record barometric pressure.

5.3.3 Repeat the calibration procedure at a vacuum of 406 mm (16 in.) Hg and at 25-mm (1-in.) Hg intervals until three consecutive determinations provide the same flow rate within 2 percent. Calculate the critical flow rate for the orifice in ml/min at standard conditions. Record the vacuum necessary to achieve critical flow.

6. NOMENCLATURE

A_L = area under the response curve of the liquid sample, area counts.

A_S = area under the response curve of the calibration gas, area counts.

C_S = actual concentration of system calibration gas, ppm propane.

$K = 1.830 \times 10^{-9}$ g/(ml-ppm).

L = total VOC content of liquid input, kg.

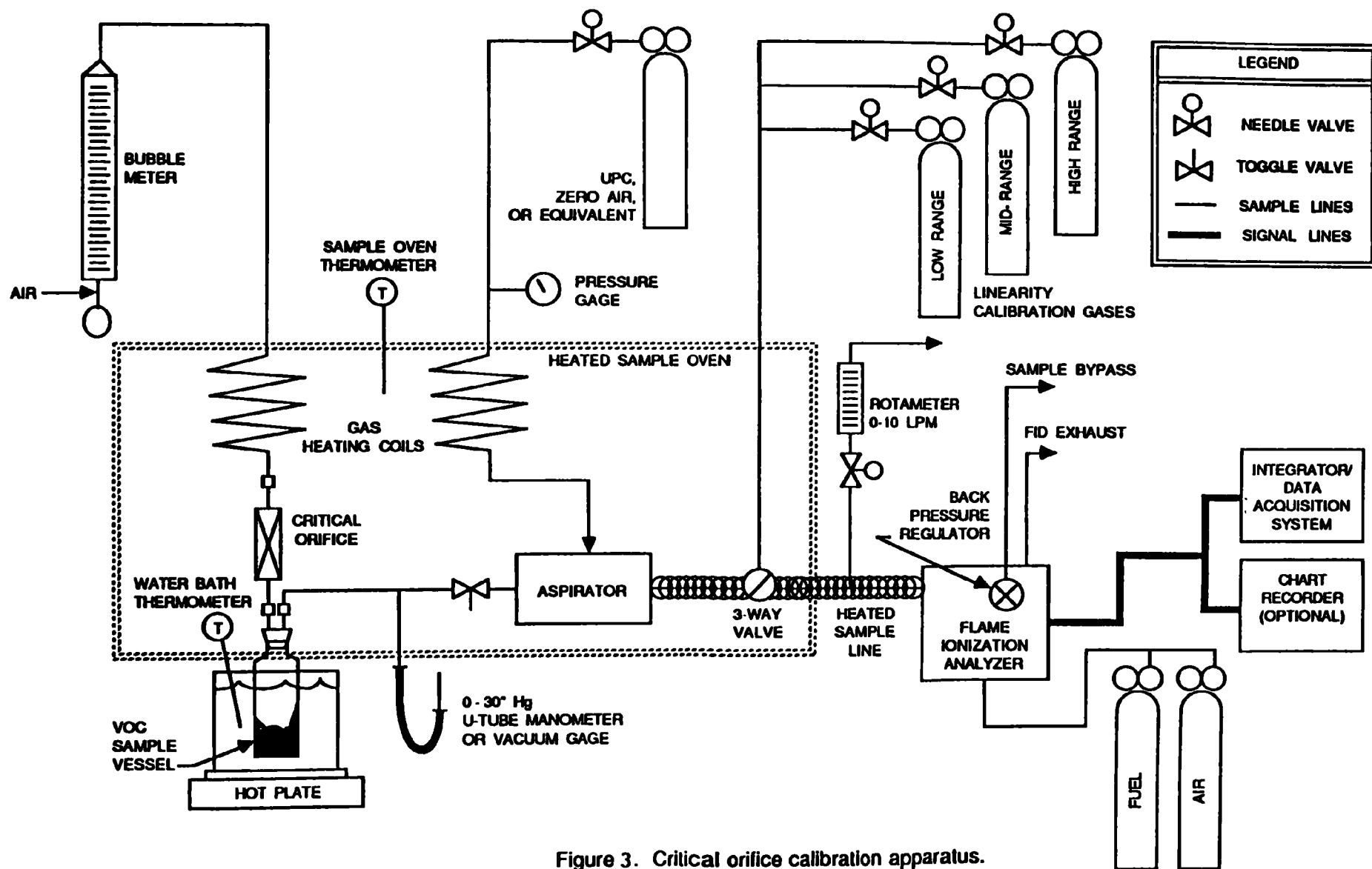
M_L = mass of liquid sample delivered to the sample vessel, grams.

n = number of VOC containing liquids.

q = flow rate through critical orifice, ml/min.

RF = liquid analysis system response factor, g/area count.

θ_S = total gas injection time for system calibration gas during integrator calibration, min.



V_{Fj} = final VOC fraction of VOC containing liquid j.

V_{Ij} = initial VOC fraction of VOC containing liquid j.

V_{Aj} = VOC fraction of VOC containing liquid j added during the run.

V = VOC fraction of liquid sample.

W_{Fj} = weight of VOC containing liquid j remaining at end of the run, kg.

W_{Ij} = weight of VOC containing liquid j at beginning of the run, kg.

W_{Aj} = weight of VOC containing liquid j added during the run, kg.

7. CALCULATIONS

7.1 Total VOC Content of the Input VOC Containing Liquid.

$$L = \sum_{j=1}^n V_{Ij} W_{Ij} - \sum_{j=1}^n V_{Fj} W_{Fj} + \sum_{j=1}^n V_{Aj} W_{Aj} \quad \text{Eq. 1}$$

7.2 Liquid Sample Analysis System Response Factor for Systems Using Integrators, Grams/Area Counts.

$$RF = \frac{C_s q \theta_s K}{A_s} \quad \text{Eq. 2}$$

7.3 VOC Content of the Liquid Sample.

$$V = \frac{A_L RF}{M_L} \quad \text{Eq. 3}$$

VOC CAPTURE EFFICIENCY
Procedure G.1 - Captured VOC Emissions

1. INTRODUCTION

1.1 Applicability. This procedure is applicable for determining the volatile organic compounds (VOC) content of captured gas streams. It is intended to be used as a segment in the development of liquid/gas or gas/gas protocols for determining VOC capture efficiency (CE) for surface coating and printing operations. The procedure may not be acceptable in certain site-specific situations, e.g., when: (1) direct fired heaters or other circumstances affect the quantity of VOC at the control device inlet; and (2) particulate organic aerosols are formed in the process and are present in the captured emissions.

1.2 Principle. The amount of VOC captured (G) is calculated as the sum of the products of the VOC content (C_{Gj}), the flow rate (Q_{Gj}), and the sample time (θ_c) from each captured emissions point.

1.3 Estimated Measurement Uncertainty. The measurement uncertainties are estimated for each captured or fugitive emissions point as follows:
 $Q_{Gj} = \pm 5.5$ percent and $C_{Gj} = \pm 5$ percent. Based on these numbers, the probable uncertainty for G is estimated at about ± 7.4 percent.

1.4 Sampling Requirements. A capture efficiency test shall consist of at least three sampling runs. The sampling time for each run should be at least 8 hours, unless otherwise approved.

1.5 Note. This procedure is often applied where there are highly explosive gas mixtures. Caution and care should be exercised in choice of equipment and installation. Mention of trade names or company products does not constitute endorsement. All gas concentrations (percent, ppm) are by volume, unless otherwise noted.

2. APPARATUS AND REAGENTS

2.1 Gas VOC Concentration. A schematic of the measurement system is shown in Figure 1. The main components are described below:

2.1.1 Sample Probe. Stainless steel, or equivalent. The probe shall be heated to prevent VOC condensation.

2.1.2 Calibration Valve Assembly. Three-way valve assembly at the outlet of sample probe to direct the zero and calibration gases to the analyzer. Other methods, such as quick-connect lines, to route calibration gases to the outlet of the sample probe are acceptable.

2.1.3 Sample Line. Stainless steel or Teflon tubing to transport the sample gas to the analyzer. The sample line must be heated to prevent condensation.

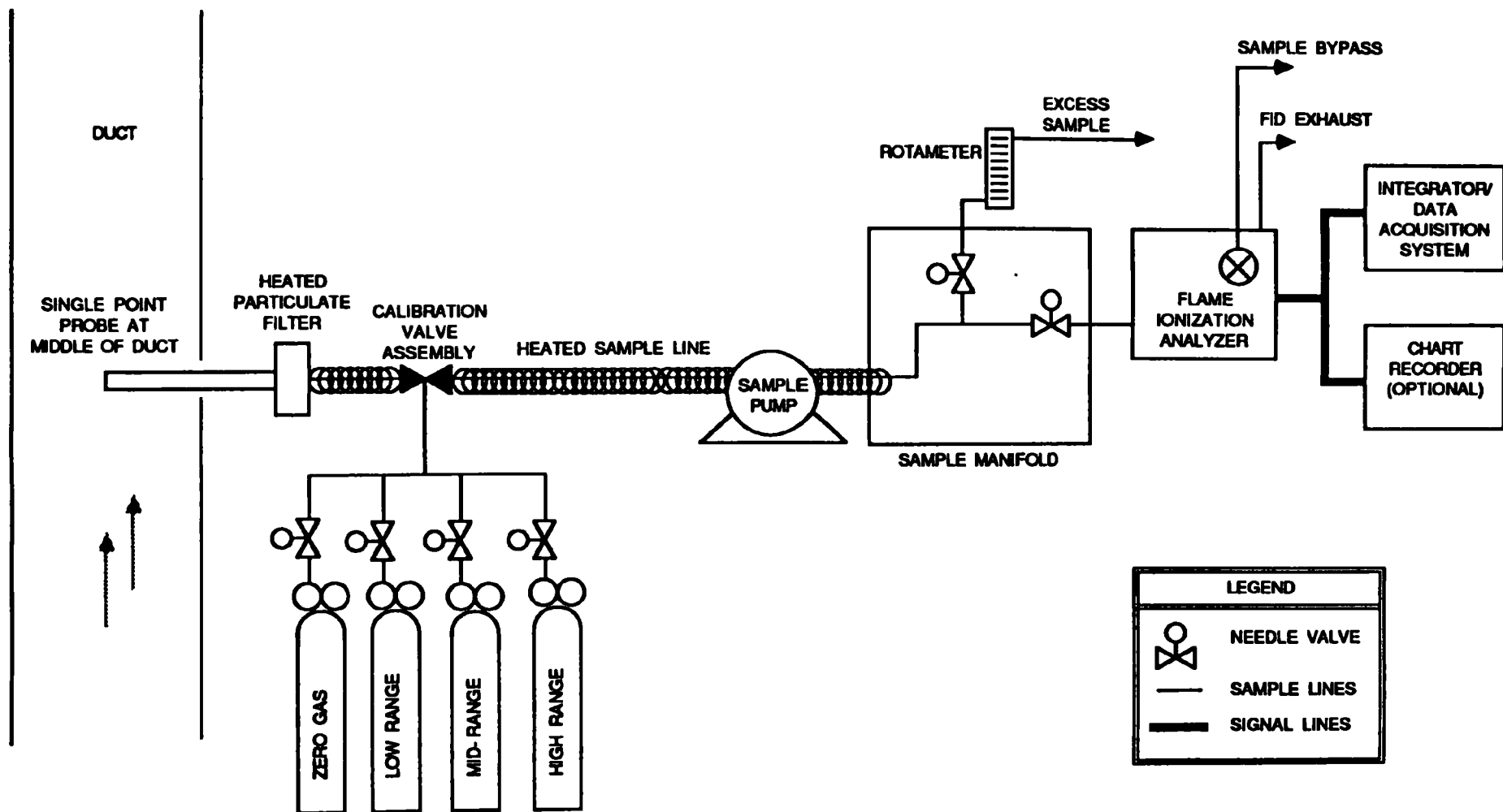


Figure 1. Gas VOC concentration measurement system.

2.1.4 Sample Pump. A leak-free pump, to pull the sample gas through the system at a flow rate sufficient to minimize the response time of the measurement system. The components of the pump that contact the gas stream shall be constructed of stainless steel or Teflon. The sample pump must be heated to prevent condensation.

2.1.5 Sample Flow Rate Control. A sample flow rate control valve and rotameter, or equivalent, to maintain a constant sampling rate within 10 percent. The flow rate control valve and rotameter must be heated to prevent condensation. A control valve may also be located on the sample pump bypass loop to assist in controlling the sample pressure and flow rate.

2.1.6 Sample Gas Manifold. Capable of diverting a portion of the sample gas stream to the flame ionization analyzer (FIA), and the remainder to the bypass discharge vent. The manifold components shall be constructed of stainless steel or Teflon. If captured or fugitive emissions are to be measured at multiple locations, the measurement system shall be designed to use separate sampling probes, lines, and pumps for each measurement location and a common sample gas manifold and FIA. The sample gas manifold and connecting lines to the FIA must be heated to prevent condensation.

2.1.7 Organic Concentration Analyzer. An FIA with a span value of 1.5 times the expected concentration as propane; however, other span values may be used if it can be demonstrated that they would provide more accurate measurements. The system shall be capable of meeting or exceeding the following specifications:

2.1.7.1 Zero Drift. Less than ± 3 percent of the span value.

2.1.7.2 Calibration Drift. Less than ± 3 percent of the span value.

2.1.7.3 Calibration Error. Less than ± 5 percent of the calibration gas value.

2.1.7.4 Response Time. Less than 30 seconds.

2.1.8 Integrator/Data Acquisition System. An analog or digital device or computerized data acquisition system used to integrate the FIA response or compute the average response and record measurement data. The minimum data sampling frequency for computing average or integrated values is one measurement value every 5 seconds. The device shall be capable of recording average values at least once per minute.

2.1.9 Calibration and Other Gases. Gases used for calibration, fuel, and combustion air (if required) are contained in compressed gas cylinders. All calibration gases shall be traceable to NIST standards and shall be certified by the manufacturer to ± 1 percent of the tag value. Additionally, the manufacturer of the cylinder should provide a recommended shelf life for each calibration gas cylinder over which the concentration does not change more than ± 2 percent from the certified value. For calibration gas values not generally available, alternative methods for preparing calibration gas mixtures, such as dilution systems, may be used with prior approval.

2.1.9.1 Fuel. A 40 percent H₂/60 percent He or 40 percent H₂/60 percent N₂ gas mixture is recommended to avoid an oxygen synergism effect that reportedly occurs when oxygen concentration varies significantly from a mean value.

2.1.9.2 Carrier Gas. High purity air with less than 1 ppm of organic material (as propane or carbon equivalent) or less than 0.1 percent of the span value, whichever is greater.

2.1.9.3 FIA Linearity Calibration Gases. Low-, mid-, and high-range gas mixture standards with nominal propane concentrations of 20-30, 45-55, and 70-80 percent of the span value in air, respectively. Other calibration values and other span values may be used if it can be shown that more accurate measurements would be achieved.

2.1.10 Particulate Filter. An in-stack or an out-of-stack glass fiber filter is recommended if exhaust gas particulate loading is significant. An out-of-stack filter must be heated to prevent any condensation unless it can be demonstrated that no condensation occurs.

2.2 Captured Emissions Volumetric Flow Rate.

2.2.1 Method 2 or 2A Apparatus. For determining volumetric flow rate.

2.2.2 Method 3 Apparatus and Reagents. For determining molecular weight of the gas stream. An estimate of the molecular weight of the gas stream may be used if it can be justified.

2.2.3 Method 4 Apparatus and Reagents. For determining moisture content, if necessary.

3. DETERMINATION OF VOLUMETRIC FLOW RATE OF CAPTURED EMISSIONS

3.1 Locate all points where emissions are captured from the affected facility or exhausted from the temporary total enclosure (TTE). Using Method 1, determine the sampling points. Be sure to check each site for cyclonic or swirling flow.

3.2 Measure the velocity at each sampling site at least once every hour during each sampling run using Method 2 or 2A.

4. DETERMINATION OF VOC CONTENT OF CAPTURED EMISSIONS

4.1 Analysis Duration. Measure the VOC responses at each captured emissions point during the entire test run or, if applicable, while the process is operating. If there are multiple captured emission locations, design a sampling system to allow a single FIA to be used to determine the VOC responses at all sampling locations.

4.2 Gas VOC Concentration.

4.2.1 Assemble the sample train as shown in Figure 1. Calibrate the FIA according to the procedure in Section 5.1.

4.2.2 Conduct a system check according to the procedure in Section 5.3.

4.2.3 Install the sample probe so that the probe is centrally located in the stack, pipe, or duct, and is sealed tightly at the stack port connection.

4.2.4 Inject zero gas at the calibration valve assembly. Allow the measurement system response to reach zero. Measure the system response time as the time required for the system to reach the effluent concentration after the calibration valve has been returned to the effluent sampling position.

4.2.5 Conduct a system check before and a system drift check after each sampling run according to the procedures in Sections 5.2 and 5.3. If the drift check following a run indicates unacceptable performance, the run is not valid. The tester may elect to perform system drift checks during the run not to exceed one drift check per hour.

4.2.6 Verify that the sample lines, filter, and pump temperatures are $120 \pm 5^{\circ}\text{C}$.

4.2.7 Begin sampling at the start of the test period and continue to sample during the entire run. Record the starting and ending times and any required process information as appropriate. If multiple captured emission locations are sampled using a single FIA, sample at each location for the same amount of time (e.g., 2 minutes) and continue to switch from one location to another for the entire test run. Be sure that total sampling time at each location is the same at the end of the test run. Collect at least 4 separate measurements from each sample point during each hour of testing. Disregard the measurements at each sampling location until two times the response time of the measurement system has elapsed. Continue sampling for at least 1 minute and record the concentration measurements. If the data acquisition system does not have any provision for recording readings that are off scale, treat any off scale reading as if it were equal to the span value.

4.3 Background Concentration.

4.3.1 Locate all NDO's of the TTE. A sampling point shall be centrally located outside of the TTE at 4 equivalent diameters from each NDO, if possible. If there are more than 6 NDO's, choose 6 sampling points evenly spaced among the NDO's.

4.3.2 Assemble the sample train as shown in Figure 2. Calibrate the FIA and conduct a system check according to the procedures in Sections 5.1 and 5.3. NOTE: This sample train shall be a separate sampling train from the one to measure the captured emissions.

4.3.3 Position the probe at the sampling location.

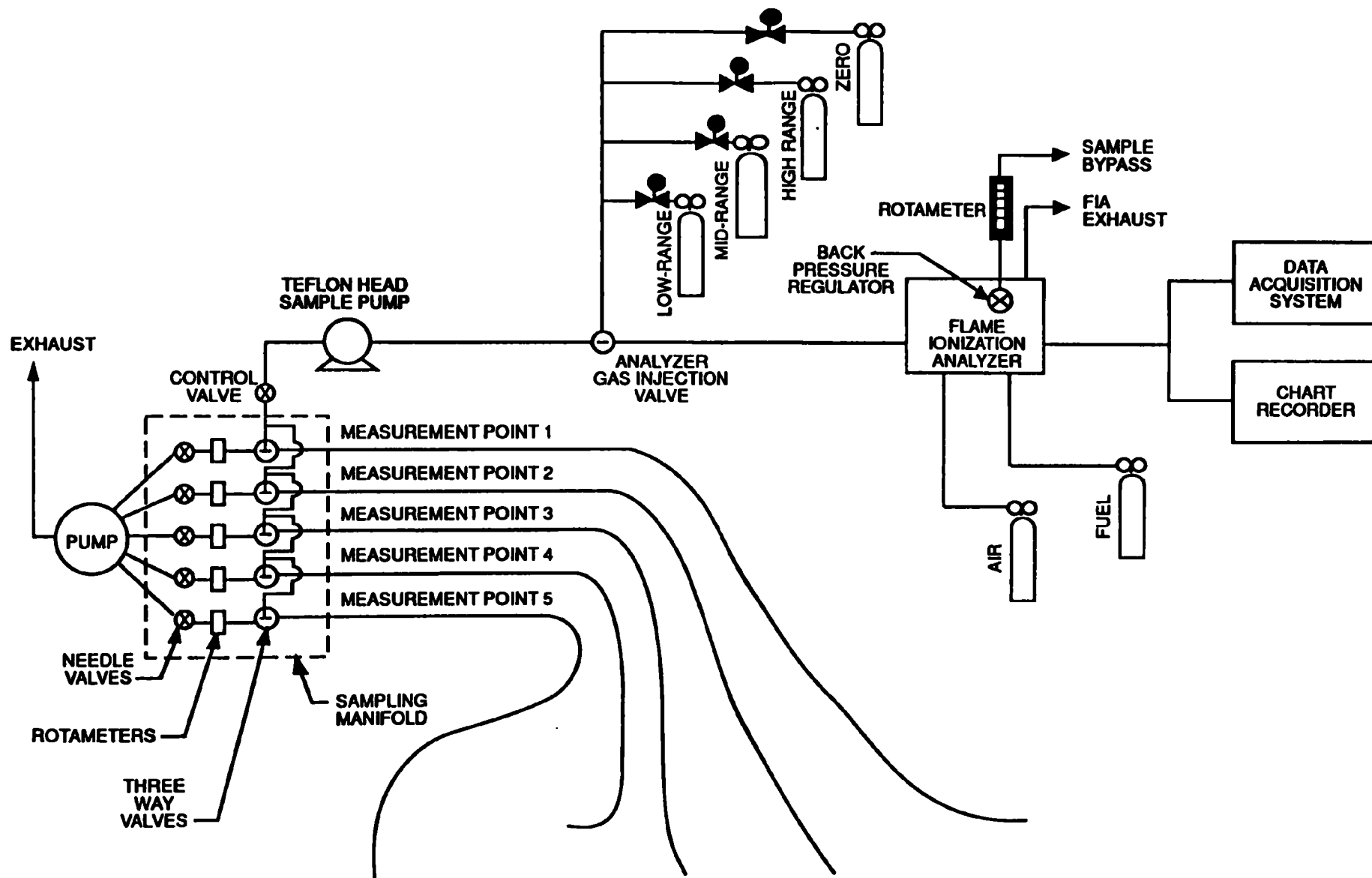


Figure 2. Background measurement system.

4.3.4 Determine the response time, conduct the system check and sample according to the procedures described in Sections 4.2.4 to 4.2.7.

4.4 Alternative Procedure. The direct interface sampling and analysis procedure described in Section 7.2 of Method 18 may be used to determine the gas VOC concentration. The system must be designed to collect and analyze at least one sample every 10 minutes.

5. CALIBRATION AND QUALITY ASSURANCE

5.1 FIA Calibration and Linearity Check. Make necessary adjustments to the air and fuel supplies for the FIA and ignite the burner. Allow the FIA to warm up for the period recommended by the manufacturer. Inject a calibration gas into the measurement system and adjust the back-pressure regulator to the value required to achieve the flow rates specified by the manufacturer. Inject the zero- and the high-range calibration gases and adjust the analyzer calibration to provide the proper responses. Inject the low- and mid-range gases and record the responses of the measurement system. The calibration and linearity of the system are acceptable if the responses for all four gases are within 5 percent of the respective gas values. If the performance of the system is not acceptable, repair or adjust the system and repeat the linearity check. Conduct a calibration and linearity check after assembling the analysis system and after a major change is made to the system.

5.2 Systems Drift Checks. Select the calibration gas that most closely approximates the concentration of the captured emissions for conducting the drift checks. Introduce the zero and calibration gas at the calibration valve assembly and verify that the appropriate gas flow rate and pressure are present at the FIA. Record the measurement system responses to the zero and calibration gases. The performance of the system is acceptable if the difference between the drift check measurement and the value obtained in Section 5.1 is less than 3 percent of the span value. Conduct the system drift checks at the end of each run.

5.3 System Check. Inject the high range calibration gas at the inlet of the sampling probe and record the response. The performance of the system is acceptable if the measurement system response is within 5 percent of the value obtained in Section 5.1 for the high range calibration gas. Conduct a system check before and after each test run.

5.4 Analysis Audit. Immediately before each test analyze an audit cylinder as described in Section 5.2. The analysis audit must agree with the audit cylinder concentration within 10 percent.

6. NOMENCLATURE

C_{B1} = corrected average VOC concentration of background emissions at point i, ppm propane.

C_B = average background concentration, ppm propane.

- C_{Gj} = corrected average VOC concentration of captured emissions at point j, ppm propane.
- C_{DH} = average measured concentration for the drift check calibration gas, ppm propane.
- C_{D0} = average system drift check concentration for zero concentration gas, ppm propane.
- C_H = actual concentration of the drift check calibration gas, ppm propane.
- C_i = uncorrected average background VOC concentration measured at point i, ppm propane.
- C_j = uncorrected average VOC concentration measured at point j, ppm propane.
- G = total VOC content of captured emissions, kg.
- K_1 = 1.830×10^{-6} kg/(m³-ppm).
- n = number of measurement points.
- Q_{Gj} = average effluent volumetric flow rate corrected to standard conditions at captured emissions point j, m³/min.
- θ_c = total duration of captured emissions sampling run, min.

7. CALCULATIONS

7.1 Total VOC Captured Emissions.

$$G = \sum_{j=1}^n (C_{Gj} - C_B) Q_{Gj} \theta_c K_1 \quad \text{Eq. 1}$$

7.2 VOC Concentration of the Captured Emissions at Point j.

$$C_{Gj} = (C_j - C_{D0}) \frac{C_H}{C_{DH} - C_{D0}} \quad \text{Eq. 2}$$

7.3 Background VOC Concentration at Point 1.

$$C_{B1} = (C_1 - C_{D0}) \frac{C_H}{C_{DH} - C_{D0}} \quad \text{Eq. 3}$$

7.4 Average Background Concentration.

$$C_B = \frac{\sum_{i=1}^n C_{B1} A_i}{n A_n} \quad \text{Eq. 4}$$

NOTE: If the concentration at all points is within 20% of the average concentration of all points, the terms "A₁" and "A_n" may be deleted from Equation 4.

VOC CAPTURE EFFICIENCY
Procedure G.2 - Captured VOC Emissions (Dilution Technique)

1. INTRODUCTION

1.1 Applicability. This procedure is applicable for determining the volatile organic compounds (VOC) content of captured gas streams. It is intended to be used as a segment in the development of a gas/gas protocol in which fugitive emissions are measured for determining VOC capture efficiency (CE) for surface coating and printing operations. A dilution system is used to reduce the VOC concentration of the captured emission to about the same concentration as the fugitive emissions. The procedure may not be acceptable in certain site-specific situations, e.g., when: (1) direct fired heaters or other circumstances affect the quantity of VOC at the control device inlet; and (2) particulate organic aerosols are formed in the process and are present in the captured emissions.

1.2 Principle. The amount of VOC captured (G) is calculated as the sum of the products of the VOC content (C_{Gj}), the flow rate (Q_{Gj}), and the sampling time (θ_c) from each captured emissions point.

1.3 Estimated Measurement Uncertainty. The measurement uncertainties are estimated for each captured or fugitive emissions point as follows: $Q_{Gj} = \pm 5.5$ percent and $C_{Gj} = \pm 5$ percent. Based on these numbers, the probable uncertainty for G is estimated at about ± 7.4 percent.

1.4 Sampling Requirements. A capture efficiency test shall consist of at least three sampling runs. The sampling time for each run should be at least 8 hours, unless otherwise approved.

1.5 Note. This procedure is often applied where there are highly explosive gas mixtures. Caution and care should be exercised in choice of equipment and installation. Mention of trade names or company products does not constitute endorsement. All gas concentrations (percent, ppm) are by volume, unless otherwise noted.

2. APPARATUS AND REAGENTS

2.1 Gas VOC Concentration. A schematic of the measurement system is shown in Figure 1. The main components are described below:

2.1.1 Dilution System. A Kipp in-stack dilution probe and controller or similar device may be used. The dilution rate may be changed by substituting different critical orifices or adjustments of the aspirator supply pressure. The dilution system shall be heated to prevent VOC condensation. Note: An out-of-stack dilution device may be used.

2.1.2 Calibration Valve Assembly. Three-way valve assembly at the outlet of sample probe to direct the zero and calibration gases to the analyzer. Other

VOC CAPTURE EFFICIENCY
Procedure F.1. - Fugitive VOC Emissions from Temporary Enclosures

1. INTRODUCTION

1.1 Applicability. This procedure is applicable for determining the fugitive volatile organic compounds (VOC) emissions from a temporary total enclosure (TTE). It is intended to be used as a segment in the development of liquid/gas or gas/gas protocols for determining VOC capture efficiency (CE) for surface coating and printing operations.

1.2 Principle. The amount of fugitive VOC emissions (F) from the TTE is calculated as the sum of the products of the VOC content (C_{Fj}) the flow rate (Q_{Fj}), and the sampling time (θ_F) from each fugitive emissions point.

1.3 Estimated Measurement Uncertainty. The measurement uncertainties are estimated for each fugitive emission point as follows: $Q_{Fj} = \pm 5.5$ percent and $C_{Fj} = \pm 5$ percent. Based on these numbers, the probable uncertainty for F is estimated at about ± 7.4 percent.

1.4 Sampling Requirements. A capture efficiency test shall consist of at least three sampling runs. The sampling time for each run should be at least 8 hours unless otherwise approved.

1.5 Note. This procedure is often applied where there are highly explosive gas mixtures. Caution and care should be exercised in choice of equipment and installation. Mention of trade names or company products does not constitute endorsement. All gas concentrations (percent, ppm) are by volume, unless otherwise noted.

2. APPARATUS AND REAGENTS

2.1 Gas VOC Concentration. A schematic of the measurement system is shown in Figure 1. The main components are described below:

2.1.1 Sample Probe. Stainless steel, or equivalent. The probe shall be heated to prevent VOC condensation.

2.1.2 Calibration Valve Assembly. Three-way valve assembly at the outlet of sample probe to direct the zero and calibration gases to the analyzer. Other methods, such as quick-connect lines, to route calibration gases to the outlet of the sample probe are acceptable.

2.1.3 Sample Line. Stainless steel or Teflon tubing to transport the sample gas to the analyzer. The sample line must be heated to prevent condensation.

2.1.4 Sample Pump. A leak-free pump, to pull the sample gas through the system at a flow rate sufficient to minimize the response time of the

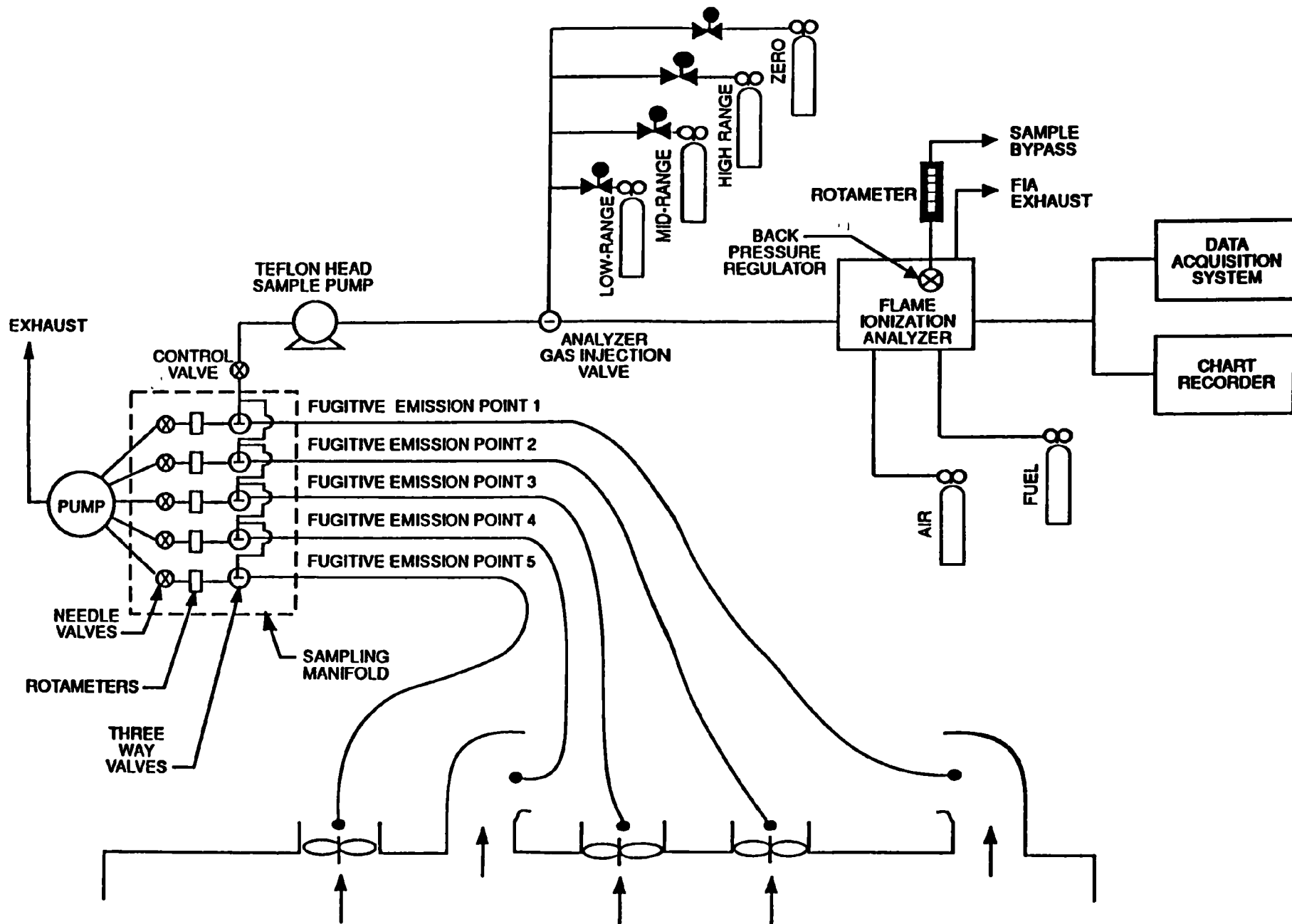


Figure 1. Fugitive emissions measurement system.

measurement system. The components of the pump that contact the gas stream shall be constructed of stainless steel or Teflon. The sample pump must be heated to prevent condensation.

2.1.5 Sample Flow Rate Control. A sample flow rate control valve and rotameter, or equivalent, to maintain a constant sampling rate within 10 percent. The flow control valve and rotameter must be heated to prevent condensation. A control valve may also be located on the sample pump bypass loop to assist in controlling the sample pressure and flow rate.

2.1.6 Sample Gas Manifold. Capable of diverting a portion of the sample gas stream to the flame ionization analyzer (FIA), and the remainder to the bypass discharge vent. The manifold components shall be constructed of stainless steel or Teflon. If emissions are to be measured at multiple locations, the measurement system shall be designed to use separate sampling probes, lines, and pumps for each measurement location and a common sample gas manifold and FIA. The sample gas manifold and connecting lines to the FIA must be heated to prevent condensation.

2.1.7 Organic Concentration Analyzer. An FIA with a span value of 1.5 times the expected concentration as propane; however, other span values may be used if it can be demonstrated that they would provide more accurate measurements. The system shall be capable of meeting or exceeding the following specifications:

2.1.7.1 Zero Drift. Less than ± 3 percent of the span value.

2.1.7.2 Calibration Drift. Less than ± 3 percent of the span value.

2.1.7.3 Calibration Error. Less than ± 5 percent of the calibration gas value.

2.1.7.4 Response Time. Less than 30 seconds.

2.2.8 Integrator/Data Acquisition System. An analog or digital device or computerized data acquisition system used to integrate the FIA response or compute the average response and record measurement data. The minimum data sampling frequency for computing average or integrated values is one measurement value every 5 seconds. The device shall be capable of recording average values at least once per minute.

2.1.9 Calibration and Other Gases. Gases used for calibration, fuel, and combustion air (if required) are contained in compressed gas cylinders. All calibration gases shall be traceable to NIST standards and shall be certified by the manufacturer to ± 1 percent of the tag value. Additionally, the manufacturer of the cylinder should provide a recommended shelf life for each calibration gas cylinder over which the concentration does not change more than ± 2 percent from the certified value. For calibration gas values not generally available, alternative methods for preparing calibration gas mixtures, such as dilution systems, may be used with prior approval.

2.1.9.1 Fuel. A 40 percent H₂/60 percent He or 40 percent H₂/60 percent N₂ gas mixture is recommended to avoid an oxygen synergism effect that reportedly occurs when oxygen concentration varies significantly from a mean value.

2.1.9.2 Carrier Gas. High purity air with less than 1 ppm of organic material (as propane or carbon equivalent) or less than 0.1 percent of the span value, whichever is greater.

2.1.9.3 FIA Linearity Calibration Gases. Low-, mid-, and high-range gas mixture standards with nominal propane concentrations of 20-30, 45-55, and 70-80 percent of the span value in air, respectively. Other calibration values and other span values may be used if it can be shown that more accurate measurements would be achieved.

2.1.10 Particulate Filter. An in-stack or an out-of-stack glass fiber filter is recommended if exhaust gas particulate loading is significant. An out-of-stack filter must be heated to prevent any condensation unless it can be demonstrated that no condensation occurs.

2.2 Fugitive Emissions Volumetric Flow Rate.

2.2.1 Method 2 or 2A Apparatus. For determining volumetric flow rate.

2.2.2 Method 3 Apparatus and Reagents. For determining molecular weight of the gas stream. An estimate of the molecular weight of the gas stream may be used if it can be justified.

2.2.3 Method 4 Apparatus and Reagents. For determining moisture content, if necessary.

2.3 Temporary Total Enclosure. The criteria for designing a TTE are discussed in Procedure TE.

3. DETERMINATION OF VOLUMETRIC FLOW RATE OF FUGITIVE EMISSIONS

3.1 Locate all points where emissions are exhausted from the TTE. Using Method 1, determine the sampling points. Be sure to check each site for cyclonic or swirling flow.

3.2 Measure the velocity at each sampling site at least once every hour during each sampling run using Method 2 or 2A.

4. DETERMINATION OF VOC CONTENT OF FUGITIVE EMISSIONS

4.1 Analysis Duration. Measure the VOC responses at each fugitive emission point during the entire test run or, if applicable, while the process is operating. If there are multiple emission locations, design a sampling system to allow a single FIA to be used to determine the VOC responses at all sampling locations.

4.2 Gas VOC Concentration.

4.2.1 Assemble the sample train as shown in Figure 1. Calibrate the FIA and conduct a system check according to the procedures in Sections 5.1 and 5.3, respectively.

4.2.2 Install the sample probe so that the probe is centrally located in the stack, pipe, or duct, and is sealed tightly at the stack port connection.

4.2.3 Inject zero gas at the calibration valve assembly. Allow the measurement system response to reach zero. Measure the system response time as the time required for the system to reach the effluent concentration after the calibration valve has been returned to the effluent sampling position.

4.2.4 Conduct a system check before and a system drift check after each sampling run according to the procedures in Sections 5.2 and 5.3. If the drift check following a run indicates unacceptable performance, the run is not valid. The tester may elect to perform system drift checks during the run not to exceed one drift check per hour.

4.2.5 Verify that the sample lines, filter, and pump temperatures are $120 \pm 5^{\circ}\text{C}$.

4.2.6 Begin sampling at the start of the test period and continue to sample during the entire run. Record the starting and ending times and any required process information as appropriate. If multiple emission locations are sampled using a single FIA, sample at each location for the same amount of time (e.g., 2 minutes) and continue to switch from one location to another for the entire test run. Be sure that total sampling time at each location is the same at the end of the test run. Disregard the response measurements at each sampling location until two times the response time of the measurement system has elapsed. Continue sampling for at least 1 minute and record the concentration measurements. If the data acquisition system does not have any provision for recording readings that are off scale, treat any off scale reading as if it were equal to the span value.

4.3 Background Concentration.

4.3.1 Determination of VOC Background Concentration.

4.3.1.1 Locate all NDO's of the TTE. A sampling point shall be centrally located outside of the TTE at 4 equivalent diameters from each NDO, if possible. If there are more than 6 NDO's, choose 6 sampling points evenly spaced among the NDO's.

4.3.1.2 Assemble the sample train as shown in Figure 2. Calibrate the FIA and conduct a system check according to the procedures in Sections 5.1 and 5.3.

4.3.1.3 Position the probe at the sampling location.

4.0 CRITERIA OF A PERMANENT TOTAL ENCLOSURE

4.1 Same as Sections 3.1 and 3.3 - 3.5.

4.2 All VOC emissions must be captured and contained for discharge through a control device.

5. PROCEDURE

5.1 Determine the equivalent diameters of the NDO's and determine the distances from each VOC emitting point to all NDO's. Determine the equivalent diameter of each exhaust duct or hood and its distance to all NDO's. Calculate the distances in terms of equivalent diameters. The number of equivalent diameters shall be at least 4.

5.2 Measure the total area (A_t) of the enclosure and the total area (A_N) of all NDO's of the enclosure. Calculate the NDO to enclosure area ratio (NEAR) as follows:

$$NEAR = A_N/A_t$$

The NEAR must be ≤ 0.05 .

5.3 Measure the actual volumetric flow rate of each gas stream exiting the enclosure through an exhaust duct or hood using EPA Method 2. In some cases (e.g., when the building is the enclosure), it may be necessary to measure the actual volumetric flow rate of each gas stream entering the enclosure through a forced makeup air duct using Method 2. Calculate FV using the following equation:

$$FV = [Q_0 - Q_i] / A_N$$

where:

Q_0 = the sum of the volumetric flow from all gas streams exiting the enclosure through an exhaust duct or hood.

Q_i = the sum of the volumetric flow from all gas streams into the enclosure through a forced makeup air duct; zero, if there is no forced makeup air into the enclosure.

A_N = total area of all NDO's in enclosure.

The FV shall be at least 3,600 m/hr (200 fpm).

5.4 Verify that the direction of air flow through all NDO's is inward. Use streamers, smoke tubes, tracer gases, etc. Strips of plastic wrapping film have been found to be effective. Monitor the direction of air flow at intervals of at least 10 minutes for at least 1 hour.

VOC CAPTURE EFFICIENCY**Procedure T - Criteria for and Verification of a Permanent or Temporary Total Enclosure****1. INTRODUCTION**

1.1 Applicability. This procedure is used to determine whether a permanent or temporary enclosure meets the criteria of a total enclosure (TE).

1.2 Principle. An enclosure is evaluated against a set of criteria. If the criteria are met and if all the exhaust gases are ducted to a control device, then the VOC CE is assumed to be 100 percent and CE need not be measured. However, if part of the exhaust gas stream is not ducted to a control device, CE must be determined.

2. DEFINITIONS

2.1 Natural Draft Opening (NDO) -- Any permanent opening in the enclosure that remains open during operation of the facility and is not connected to a duct in which a fan is installed.

2.2 Permanent Total Enclosure (PTE) -- A permanently installed enclosure that completely surrounds a source of emissions such that all VOC emissions are captured and contained for discharge through a control device.

2.3 Temporary Total Enclosure (TTE) -- A temporarily installed enclosure that completely surrounds a source of emissions such that all VOC emissions are captured and contained for discharge through ducts that allow for the accurate measurement of VOC rates.

3. CRITERIA OF A TEMPORARY TOTAL ENCLOSURE

3.1 Any NDO shall be at least 4 equivalent opening diameters from each VOC emitting point.

3.2 Any exhaust point from the enclosure shall be at least 4 equivalent duct or hood diameters from each NDO.

3.3 The total area of all NDO's shall not exceed 5 percent of the surface area of the enclosure's four walls, floor, and ceiling.

3.4 The average facial velocity (FV) of air through all NDO's shall be at least 3,600 m/hr (200 fpm). The direction of air through all NDO's shall be into the enclosure.

3.5 All access doors and windows whose areas are not included in Section 3.3 and are not included in the calculation in Section 3.4 shall be closed during routine operation of the process.

6. QUALITY ASSURANCE

6.1 The success of this protocol lies in designing the TTE to simulate the conditions that exist without the TTE, i.e., the effect of the TTE on the normal flow patterns around the affected facility or the amount of fugitive VOC emissions should be minimal. The TTE must enclose the application stations, coating reservoirs, and all areas from the application station to the oven. The oven does not have to be enclosed if it is under negative pressure. The NDO's of the temporary enclosure and a fugitive exhaust fan must be properly sized and placed.

6.2. Estimate the ventilation rate of the TTE that best simulates the conditions that exist without the TTE, i.e., the effect of the TTE on the normal flow patterns around the affected facility or the amount of fugitive VOC emissions should be minimal. Figure 1 may be used as an aid. Measure the concentration (C_G) and flow rate (Q_G) of the captured gas stream, specify a safe concentration (C_F) for the fugitive gas stream, estimate the CE, and then use the plot in Figure 1 to determine the volumetric flowrate of the fugitive gas stream (Q_F). A fugitive VOC emission exhaust fan that has a variable flow control is desirable.

6.2.1 Monitor the concentration of VOC into the capture device without the TTE. To minimize the effect of temporal variation on the captured emissions, the baseline measurement should be made over as long a time period as practical. However, the process conditions must be the same for the measurement in Section 6.2.3 as they are for this baseline measurement. This may require short measuring times for this quality control check before and after the construction of the TTE.

6.2.2 After the TTE is constructed, monitor the VOC concentration inside the TTE. This concentration shall not continue to increase and must not exceed the safe level according to OSHA requirements for permissible exposure limits. An increase in VOC concentration indicates poor TTE design or poor capture efficiency.

6.2.3 Monitor the concentration of VOC into the capture device with the TTE. To limit the effect of the TTE on the process, the VOC concentration with and without the TTE must be within ± 10 percent. If the measurements do not agree, adjust the ventilation rate from the TTE until they agree within 10 percent.

θ_f = total duration of capture efficiency sampling run, min.

7. CALCULATIONS

7.1 Total VOC Fugitive Emissions From the Building.

$$F_B = \sum_{j=1}^B C_{Fj} Q_{Fj} \theta_f K_1 \quad \text{Eq. 1}$$

7.2 VOC Concentration of the Fugitive Emissions at Point j.

$$C_{Fj} = (C_j - C_{DO}) \frac{C_H}{C_{DH} - C_{DO}} \quad \text{Eq. 2}$$

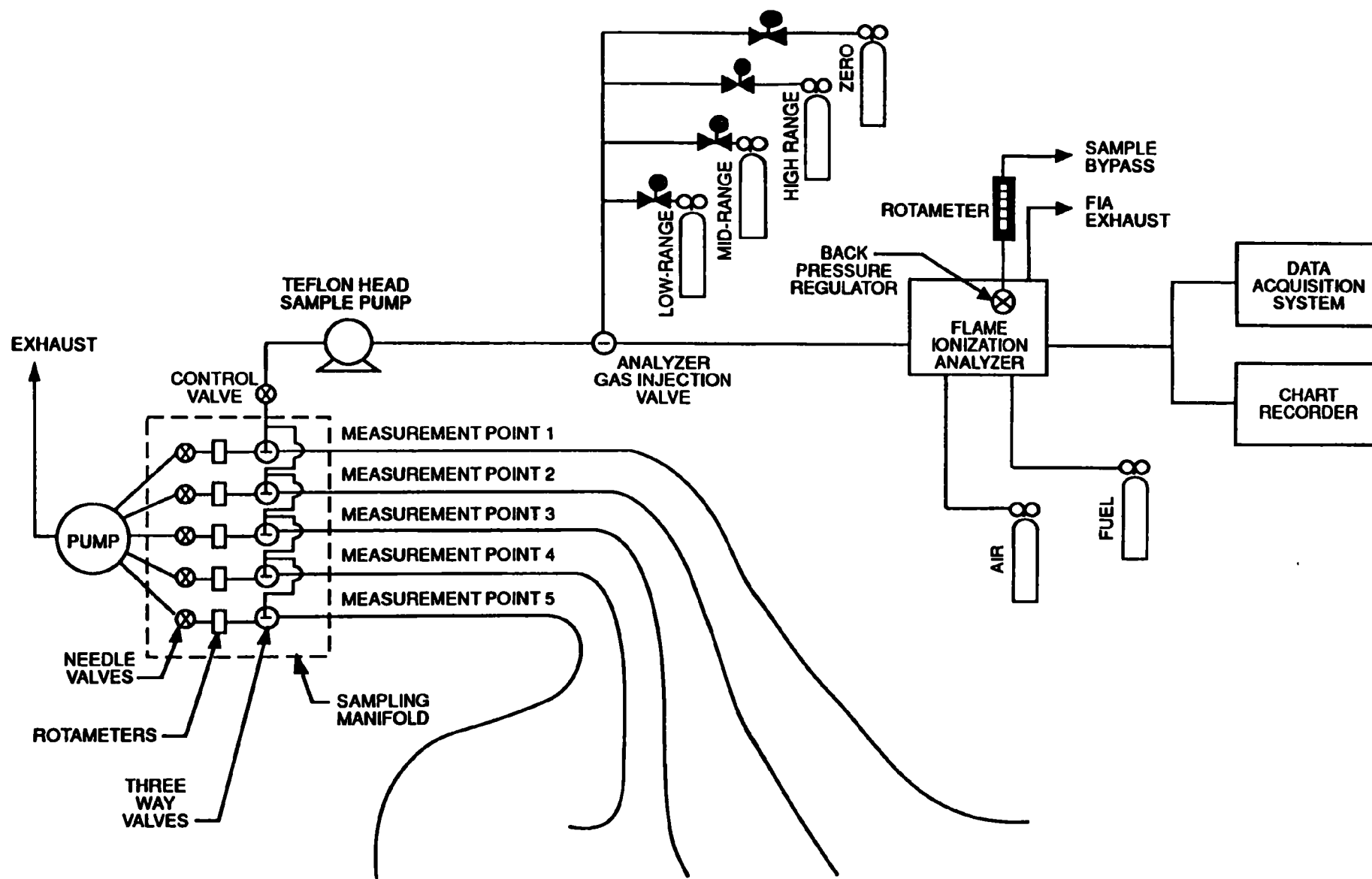


Figure 2. Background measurement system

4.3.1.4 Determine the response time, conduct the system check and sample according to the procedures described in Sections 4.2.3 to 4.2.6.

4.4 Alternative Procedure. The direct interface sampling and analysis procedure described in Section 7.2 of Method 18 may be used to determine the gas VOC concentration. The system must be designed to collect and analyze at least one sample every 10 minutes.

5. CALIBRATION AND QUALITY ASSURANCE

5.1 FIA Calibration and Linearity Check. Make necessary adjustments to the air and fuel supplies for the FIA and ignite the burner. Allow the FIA to warm up for the period recommended by the manufacturer. Inject a calibration gas into the measurement system and adjust the back-pressure regulator to the value required to achieve the flow rates specified by the manufacturer. Inject the zero- and the high-range calibration gases and adjust the analyzer calibration to provide the proper responses. Inject the low- and mid-range gases and record the responses of the measurement system. The calibration and linearity of the system are acceptable if the responses for all four gases are within 5 percent of the respective gas values. If the performance of the system is not acceptable, repair or adjust the system and repeat the linearity check. Conduct a calibration and linearity check after assembling the analysis system and after a major change is made to the system.

5.2 Systems Drift Checks. Select the calibration gas concentration that most closely approximates that of the fugitive gas emissions to conduct the drift checks. Introduce the zero and calibration gas at the calibration valve assembly and verify that the appropriate gas flow rate and pressure are present at the FIA. Record the measurement system responses to the zero and calibration gases. The performance of the system is acceptable if the difference between the drift check measurement and the value obtained in Section 5.1 is less than 3 percent of the span value. Conduct a system drift check at the end of each run.

5.3 System Check. Inject the high range calibration gas at the inlet of the sampling probe and record the response. The performance of the system is acceptable if the measurement system response is within 5 percent of the value obtained in Section 5.1 for the high range calibration gas. Conduct a system check before each test run.

5.4 Analysis Audit. Immediately before each test analyze an audit cylinder as described in Section 5.2. The analysis audit must agree with the audit cylinder concentration within 10 percent.

6. NOMENCLATURE

A_i = area of NDO i, ft².

A_N = total area of all NDO's in the enclosure, ft².

- C_{Bi} = corrected average VOC concentration of background emissions at point i, ppm propane.
- C_B = average background concentration, ppm propane.
- C_{DH} = average measured concentration for the drift check calibration gas, ppm propane.
- C_{D0} = average system drift check concentration for zero concentration gas, ppm propane.
- C_{Fj} = corrected average VOC concentration of fugitive emissions at point j, ppm propane.
- C_H = actual concentration of the drift check calibration gas, ppm propane.
- C_i = uncorrected average background VOC concentration at point i, ppm propane.
- C_j = uncorrected average VOC concentration measured at point j, ppm propane.
- F = total VOC content of fugitive emissions, kg.
- K_i = 1.830×10^{-6} kg/(m³-ppm).
- n = number of measurement points.
- Q_{Fj} = average effluent volumetric flow rate corrected to standard conditions at fugitive emissions point j, m³/min.
- θ_F = total duration of fugitive emissions sampling run, min.

7. CALCULATIONS

7.1 Total VOC Fugitive Emissions.

$$F = \sum_{j=1}^n (C_{Fj} - C_B) Q_{Fj} \theta_F K_i \quad \text{Eq. 1}$$

7.2 VOC Concentration of the Fugitive Emissions at Point j.

$$C_{Fj} = (C_j - C_{D0}) \frac{C_H}{C_{DH} - C_{D0}} \quad \text{Eq. 2}$$

7.3 Background VOC Concentration at Point 1.

$$C_{B1} = (C_1 - C_{DO}) \frac{C_H}{C_{DH} - C_{DO}} \quad \text{Eq. 3}$$

7.4 Average Background Concentration.

$$C_B = \frac{\sum_{i=1}^n C_{Bi} A_i}{n A_n} \quad \text{Eq. 4}$$

NOTE: If the concentration at all points is within 20% of the average concentration of all points, the terms "A_i" and "A_n" may be deleted from Equation 4.

VOC CAPTURE EFFICIENCY

Procedure F.2 - Fugitive VOC Emissions from Building Enclosures

1. INTRODUCTION

1.1 Applicability. This procedure is applicable for determining the fugitive volatile organic compounds (VOC) emissions from a building enclosure (BE). It is intended to be used as a segment in the development of liquid/gas or gas/gas protocols for determining VOC capture efficiency (CE) for surface coating and printing operations.

1.2 Principle. The total amount of fugitive VOC emissions (F_B) from the BE is calculated as the sum of the products of the VOC content (C_{Fj}) of each fugitive emissions point, its flow rate (Q_{Fj}), and time (θ_F).

1.3 Measurement Uncertainty. The measurement uncertainties are estimated for each fugitive emissions point as follows: $Q_{Fj} = \pm 5$ percent and $C_{Fj} = \pm 5$ percent. Based on these numbers, the probable uncertainty for F_B is estimated at about ± 11.2 percent.

1.4 Sampling Requirements. A capture efficiency test shall consist of at least three sampling runs. The sampling time for each run should be at least 8 hours, unless otherwise approved.

1.5 Note. This procedure is often applied where there are highly explosive gas mixtures. Caution and care should be exercised in choice of equipment and installation. Mention of trade names or company products does not constitute endorsement. All gas concentrations (percent, ppm) are by volume, unless otherwise noted.

2. APPARATUS AND REAGENTS

2.1 Gas VOC Concentration. A schematic of the measurement system is shown in Figure 1. The main components are described below:

2.1.1 Sample Probe. Stainless steel, or equivalent. The probe shall be heated to prevent VOC condensation.

2.1.2 Calibration Valve Assembly. Three-way valve assembly at the outlet of sample probe to direct the zero and calibration gases to the analyzer. Other methods, such as quick-connect lines, to route calibration gases to the outlet of the sample probe are acceptable.

2.1.3 Sample Line. Stainless steel or Teflon tubing to transport the sample gas to the analyzer. The sample line must be heated to prevent condensation.

2.1.4 Sample Pump. A leak-free pump, to pull the sample gas through the system at a flow rate sufficient to minimize the response time of the measurement system. The components of the pump that contact the gas stream

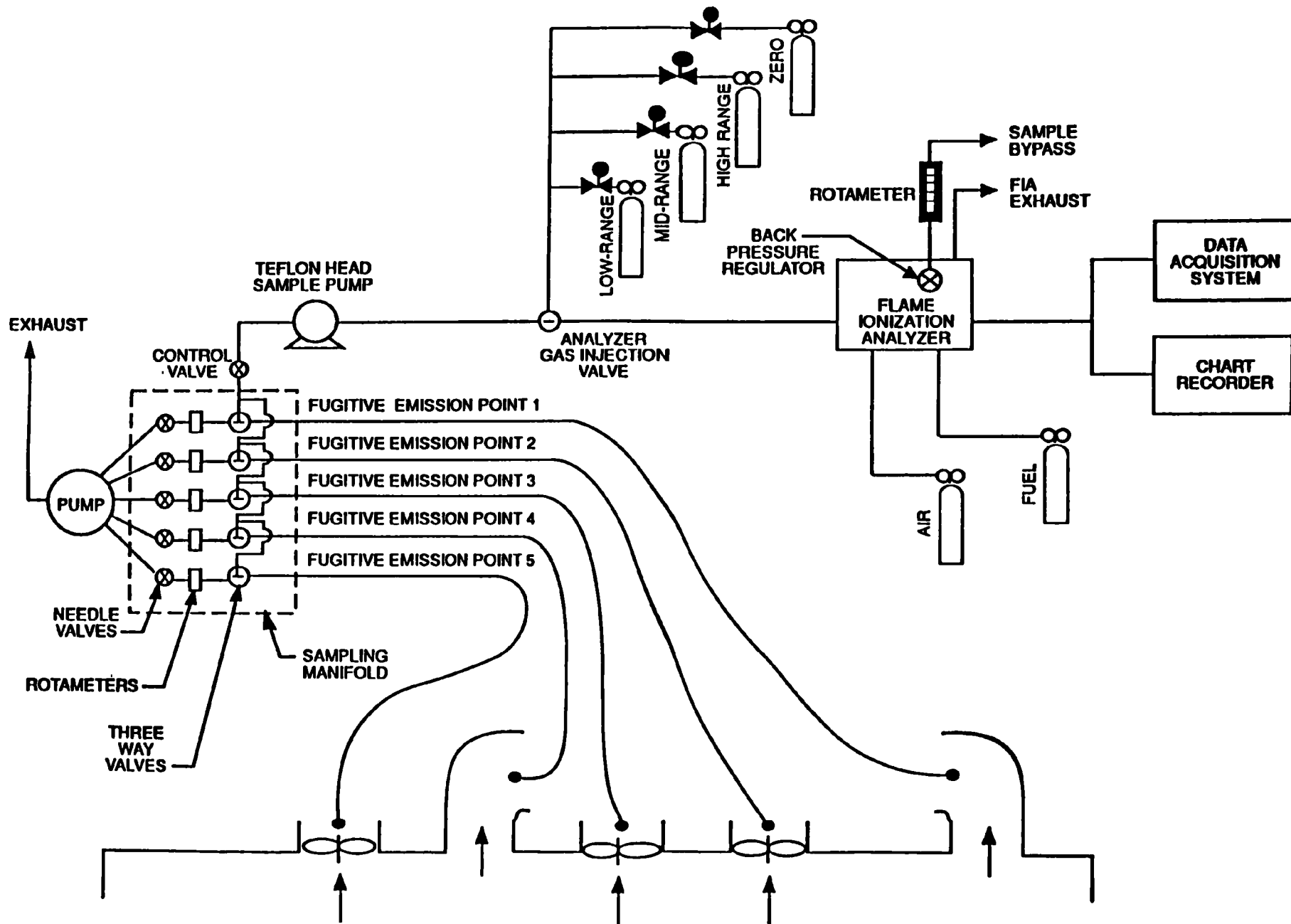


Figure 1. Fugitive emissions measurement system.

shall be constructed of stainless steel or Teflon. The sample pump must be heated to prevent condensation.

2.1.5 Sample Flow Rate Control. A sample flow rate control valve and rotameter, or equivalent, to maintain a constant sampling rate within 10 percent. The flow rate control valve and rotameter must be heated to prevent condensation. A control valve may also be located on the sample pump bypass loop to assist in controlling the sample pressure and flow rate.

2.1.6 Sample Gas Manifold. Capable of diverting a portion of the sample gas stream to the flame ionization analyzer (FIA), and the remainder to the bypass discharge vent. The manifold components shall be constructed of stainless steel or Teflon. If emissions are to be measured at multiple locations, the measurement system shall be designed to use separate sampling probes, lines, and pumps for each measurement location and a common sample gas manifold and FIA. The sample gas manifold must be heated to prevent condensation.

2.1.7 Organic Concentration Analyzer. An FIA with a span value of 1.5 times the expected concentration as propane; however, other span values may be used if it can be demonstrated that they would provide more accurate measurements. The system shall be capable of meeting or exceeding the following specifications:

2.1.7.1 Zero Drift. Less than ± 3 percent of the span value.

2.1.7.2 Calibration Drift. Less than ± 3 percent of the span value.

2.1.7.3 Calibration Error. Less than ± 5 percent of the calibration gas value.

2.1.7.4 Response Time. Less than 30 seconds.

2.1.8 Integrator/Data Acquisition System. An analog or digital device or computerized data acquisition system used to integrate the FIA response or compute the average response and record measurement data. The minimum data sampling frequency for computing average or integrated values is one measurement value every 5 seconds. The device shall be capable of recording average values at least once per minute.

2.1.9 Calibration and Other Gases. Gases used for calibration, fuel, and combustion air (if required) are contained in compressed gas cylinders. All calibration gases shall be traceable to NIST standards and shall be certified by the manufacturer to ± 1 percent of the tag value. Additionally, the manufacturer of the cylinder should provide a recommended shelf life for each calibration gas cylinder over which the concentration does not change more than ± 2 percent from the certified value. For calibration gas values not generally available, alternative methods for preparing calibration gas mixtures, such as dilution systems, may be used with prior approval.

2.1.9.1 Fuel. A 40 percent H_2 /60 percent He or 40 percent H_2 /60 percent N_2 gas mixture is recommended to avoid an oxygen synergism effect that reportedly occurs when oxygen concentration varies significantly from a mean value.

2.1.9.2 Carrier Gas. High purity air with less than 1 ppm of organic material (propane or carbon equivalent) or less than 0.1 percent of the span value, whichever is greater.

2.1.9.3 FIA Linearity Calibration Gases. Low-, mid-, and high-range gas mixture standards with nominal propane concentrations of 20-30, 45-55, and 70-80 percent of the span value in air, respectively. Other calibration values and other span values may be used if it can be shown that more accurate measurements would be achieved.

2.1.10 Particulate Filter. An in-stack or an out-of-stack glass fiber filter is recommended if exhaust gas particulate loading is significant. An out-of-stack filter must be heated to prevent any condensation unless it can be demonstrated that no condensation occurs.

2.2 Fugitive Emissions Volumetric Flow Rate.

2.2.1 Flow Direction Indicators. Any means of indicating inward or outward flow, such as light plastic film or paper streamers, smoke tubes, filaments, and sensory perception.

2.2.2 Method 2 or 2A Apparatus. For determining volumetric flow rate. Anemometers or similar devices calibrated according to the manufacturer's instructions may be used when low velocities are present. Vane anemometers (Young-maximum response propeller), specialized pitots with electronic manometers (e.g., Shortridge Instruments Inc., Airdata Multimeter 860) are commercially available with measurement thresholds of 15 and 8 mpm (50 and 25 fpm), respectively.

2.2.3 Method 3 Apparatus and Reagents. For determining molecular weight of the gas stream. An estimate of the molecular weight of the gas stream may be used if it can be justified.

2.2.4 Method 4 Apparatus and Reagents. For determining moisture content, if necessary.

3. DETERMINATION OF VOLUMETRIC FLOW RATE OF FUGITIVE EMISSIONS

3.1 Preliminary Determinations. The purpose of this exercise is to determine which exhaust points should be measured for volumetric flow rates and VOC concentrations.

3.1.1 Forced Draft Openings. Identify all forced draft openings. Determine the volumetric flow rate according to Method 2.

3.1.2 NDO's Exhaust Points. The NDO's in the roof of a facility are considered to be exhaust points. Determine volumetric flow rate from these NDO's. Divide the cross-sectional area according to Method 1 using 12 equal areas. Use the appropriate velocity measurement devices, e.g., propeller anemometers.

3.1.3 Other NDO's.

3.1.3.1 This step is optional. Determine the exhaust flow rate, including that of the control device, from the enclosure and the intake air flow rate. If the exhaust flow rate divided by the intake air flow rate is greater than 1.1, then all other NDO's are not considered to be significant exhaust points.

3.1.3.2 If the option above is not taken, identify all other NDO's and other potential points through which fugitive emissions may escape the enclosure. Then use the following criteria to determine whether flow rates and VOC concentrations need to be measured:

3.1.3.2.1 Using the appropriate flow direction indicator, determine the flow direction. An NDO with zero or inward flow is not an exhaust point.

3.1.3.2.2 Measure the outward volumetric flow rate from the remainder of the NDO's. If the collective flow rate is 2 percent, or less, of the flow rate from Sections 3.1.1 and 3.1.2, then these NDO's, except those within two equivalent diameters (based on NDO opening) from VOC sources, may be considered to be non-exhaust points.

3.1.3.2.3 If the percentage calculated in Section 3.1.3.2.2 is greater than 2 percent, those NDO's (except those within two equivalent diameters from VOC sources) whose volumetric flow rate total 2 percent of the flow rate from Sections 3.1.1 and 3.1.2 may be considered as non-exhaust points. All remaining NDO's shall be measured for volumetric flow rate and VOC concentrations during the CE test.

3.1.3.2.4 The tester may choose to measure VOC concentrations at the forced exhaust points and the NDO's. If the total VOC emissions from the NDO's are less than 2 percent of the emissions from the forced draft and roof NDO's, then these NDO's may be eliminated from further consideration.

3.2 Determination of Flow Rates.

3.2.1 Measure the volumetric flow rate at all locations identified as exhaust points in Section 3.1. Divide each exhaust opening into 9 equal areas for rectangular openings and 8 for circular openings.

3.2.2 Measure the velocity at each site at least once every hour during each sampling run using Method 2 or 2A, if applicable, or using the low velocity instruments in Section 2.2.2.

4. DETERMINATION OF VOC CONTENT OF FUGITIVE EMISSIONS

4.1 Analysis Duration. Measure the VOC responses at each fugitive emission point during the entire test run or, if applicable, while the process is operating. If there are a multiple emissions locations, design a sampling system to allow a single FIA to be used to determine the VOC responses at all sampling locations.

4.2 Gas VOC Concentration.

4.2.1 Assemble the sample train as shown in Figure 1. Calibrate the FIA and conduct a system check according to the procedures in Sections 5.1 and 5.3, respectively.

4.2.2 Install the sample probe so that the probe is centrally located in the stack, pipe, or duct, and is sealed tightly at the stack port connection.

4.2.3 Inject zero gas at the calibration valve assembly. Allow the measurement system response to reach zero. Measure the system response time as the time required for the system to reach the effluent concentration after the calibration valve has been returned to the effluent sampling position.

4.2.4 Conduct a system check before and a system drift check after each sampling run according to the procedures in Sections 5.2 and 5.3. If the drift check following a run indicates unacceptable performance, the run is not valid. The tester may elect to perform drift checks during the run not to exceed one drift check per hour.

4.2.5 Verify that the sample lines, filter, and pump temperatures are $120 \pm 5^{\circ}\text{C}$.

4.2.6 Begin sampling at the start of the test period and continue to sample during the entire run. Record the starting and ending times and any required process information as appropriate. If multiple emission locations are sampled using a single FIA, sample at each location for the same amount of time (e.g., 2 minutes) and continue to switch from one location to another for the entire test run. Be sure that total sampling time at each location is the same at the end of the test run. Disregard the response measurements at each sampling location until two times the response time of the measurement system has elapsed. Continue sampling for at least 1 minute and record the concentration measurements. If the data acquisition system does not have any provision for recording readings that are off scale, treat any off scale reading as if it were equal to the span value.

4.3 Alternative Procedure The direct interface sampling and analysis procedure described in Section 7.2 of Method 18 may be used to determine the gas VOC concentration. The system must be designed to collect and analyze at least one sample every 10 minutes.

5. CALIBRATION AND QUALITY ASSURANCE

5.1 FIA Calibration and Linearity Check. Make necessary adjustments to the air and fuel supplies for the FIA and ignite the burner. Allow the FIA to warm up for the period recommended by the manufacturer. Inject a calibration gas into the measurement system and adjust the back-pressure regulator to the value required to achieve the flow rates specified by the manufacturer. Inject the zero- and the high-range calibration gases and adjust the analyzer calibration to provide the proper responses. Inject the low- and mid-range gases and record the responses of the measurement system. The calibration and

linearity of the system are acceptable if the responses for all four gases are within 5 percent of the respective gas values. If the performance of the system is not acceptable, repair or adjust the system and repeat the linearity check. Conduct a calibration and linearity check after assembling the analysis system and after a major change is made to the system.

5.2 Systems Drift Checks. Select the calibration gas that most closely approximates the concentration of the captured emissions for conducting the drift checks. Introduce the zero and calibration gas at the calibration valve assembly and verify that the appropriate gas flow rate and pressure are present at the FIA. Record the measurement system responses to the zero and calibration gases. The performance of the system is acceptable if the difference between the drift check measurement and the value obtained in Section 5.1 is less than 3 percent of the span value. Conduct a system drift check at the end of each run.

5.3 System Check. Inject the high range calibration gas at the inlet of the sampling probe and record the response. The performance of the system is acceptable if the measurement system response is within 5 percent of the value obtained in Section 5.1 for the high range calibration gas. Conduct a system check before each test run.

5.4 Analysis Audit. Immediately before each test analyze an audit cylinder as described in Section 5.2. The analysis audit must agree with the audit cylinder concentration within 10 percent.

6. NOMENCLATURE

C_{DH} = average measured concentration for the drift check calibration gas, ppm propane.

C_{DO} = average system drift check concentration for zero concentration gas, ppm propane.

C_{Fj} = corrected average VOC concentration of fugitive emissions at point j, ppm propane.

C_H = actual concentration of the drift check calibration gas, ppm propane.

C_j = uncorrected average VOC concentration measured at point j, ppm propane.

F_B = total VOC content of fugitive emissions from the building, kg.

K_1 = 1.830×10^{-6} kg/(m³-ppm).

n = number of measurement points.

Q_{Fj} = average effluent volumetric flow rate corrected to standard conditions at fugitive emissions point j, m³/min.

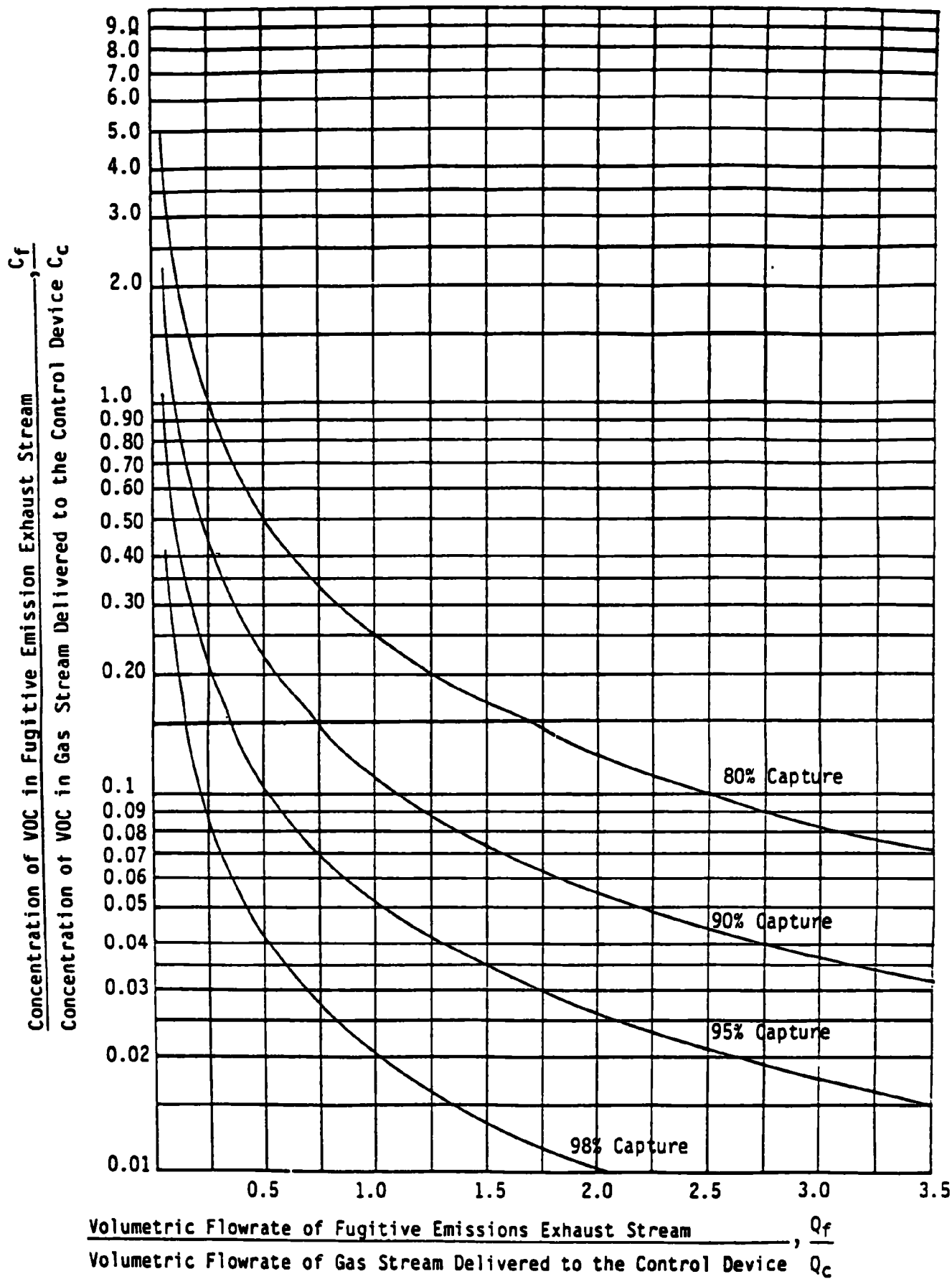


Figure 1. The Crumpler Chart

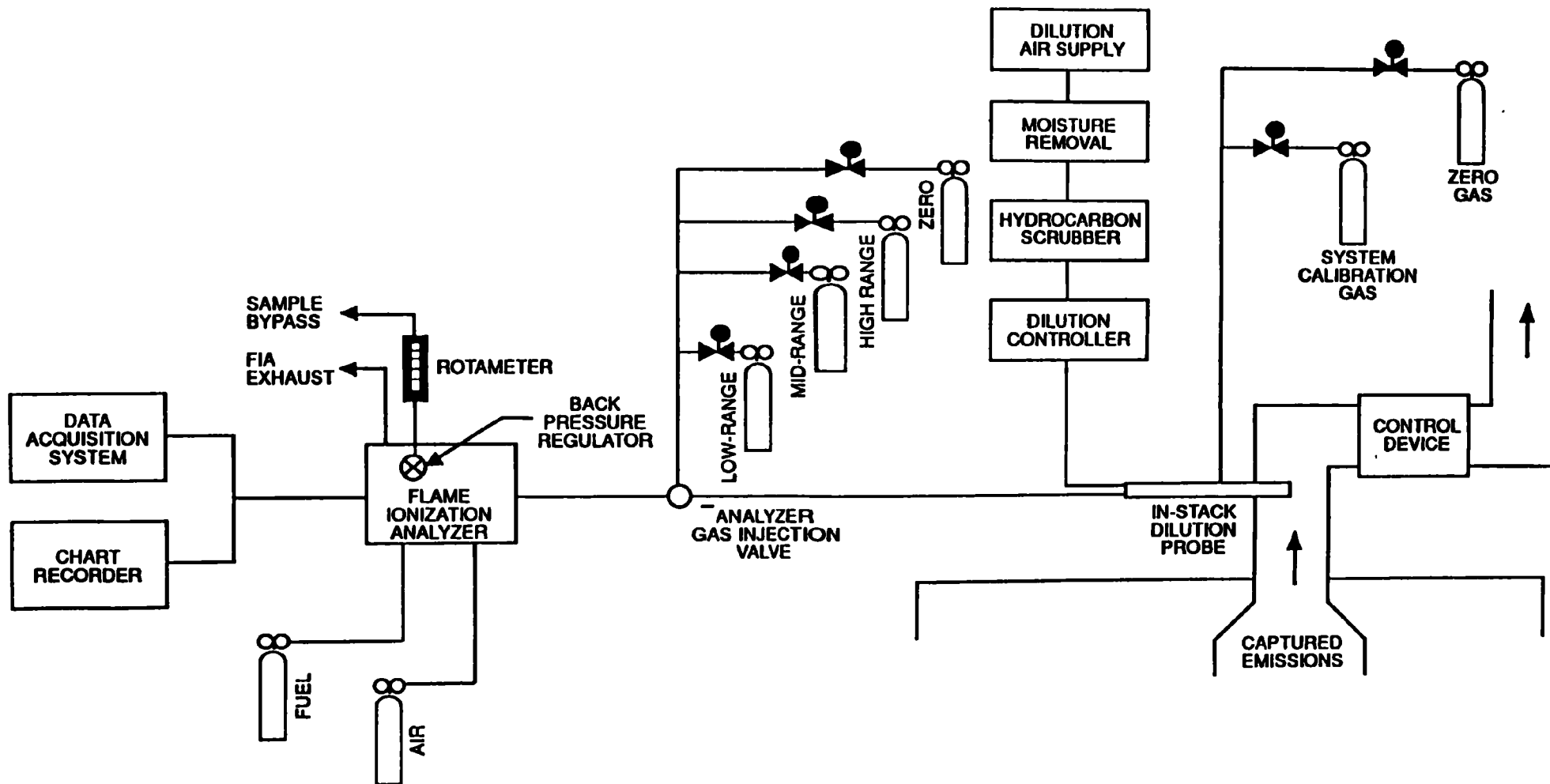


Figure 1. Captured emissions measurement system.

methods, such as quick-connect lines, to route calibration gases to the outlet of the sample probe are acceptable.

2.1.3 Sample Line. Stainless steel or Teflon tubing to transport the sample gas to the analyzer. The sample line must be heated to prevent condensation.

2.1.4 Sample Pump. A leak-free pump, to pull the sample gas through the system at a flow rate sufficient to minimize the response time of the measurement system. The components of the pump that contact the gas stream shall be constructed of stainless steel or Teflon. The sample pump must be heated to prevent condensation.

2.1.5 Sample Flow Rate Control. A sample flow rate control valve and rotameter, or equivalent, to maintain a constant sampling rate within 10 percent. The flow control valve and rotameter must be heated to prevent condensation. A control valve may also be located on the sample pump bypass loop to assist in controlling the sample pressure and flow rate.

2.1.6 Sample Gas Manifold. Capable of diverting a portion of the sample gas stream to the flame ionization analyzer (FIA), and the remainder to the bypass discharge vent. The manifold components shall be constructed of stainless steel or Teflon. If captured or fugitive emissions are to be measured at multiple locations, the measurement system shall be designed to use separate sampling probes, lines, and pumps for each measurement location and a common sample gas manifold and FIA. The sample gas manifold and connecting lines to the FIA must be heated to prevent condensation.

2.1.7 Organic Concentration Analyzer. An FIA with a span value of 1.5 times the expected concentration as propane; however, other span values may be used if it can be demonstrated that they would provide more accurate measurements. The system shall be capable of meeting or exceeding the following specifications:

2.1.7.1 Zero Drift. Less than ± 3 percent of the span value.

2.1.7.2 Calibration Drift. Less than ± 3 percent of the span value.

2.1.7.3 Calibration Error. Less than ± 5 percent of the calibration gas value.

2.1.7.4 Response Time. Less than 30 seconds.

2.1.8 Integrator/Data Acquisition System. An analog or digital device or computerized data acquisition system used to integrate the FIA response or compute the average response and record measurement data. The minimum data sampling frequency for computing average or integrated values is one measurement value every 5 seconds. The device shall be capable of recording average values at least once per minute.

2.1.9 Calibration and Other Gases. Gases used for calibration, fuel, and combustion air (if required) are contained in compressed gas cylinders. All calibration gases shall be traceable to NIST standards and shall be certified

by the manufacturer to ± 1 percent of the tag value. Additionally, the manufacturer of the cylinder should provide a recommended shelf life for each calibration gas cylinder over which the concentration does not change more than ± 2 percent from the certified value. For calibration gas values not generally available, alternative methods for preparing calibration gas mixtures, such as dilution systems, may be used with prior approval.

2.1.9.1 Fuel. A 40 percent H_2 /60 percent He or 40 percent H_2 /60 percent N_2 gas mixture is recommended to avoid an oxygen synergism effect that reportedly occurs when oxygen concentration varies significantly from a mean value.

2.1.9.2 Carrier Gas and Dilution Air Supply. High purity air with less than 1 ppm of organic material (as propane or carbon equivalent) or less than 0.1 percent of the span value, whichever is greater.

2.1.9.3 FIA Linearity Calibration Gases. Low-, mid-, and high-range gas mixture standards with nominal propane concentrations of 20-30, 45-55, and 70-80 percent of the span value in air, respectively. Other calibration values and other span values may be used if it can be shown that more accurate measurements would be achieved.

2.1.9.4 Dilution Check Gas. Gas mixture standard containing propane in air, approximately half the span value after dilution.

2.1.10 Particulate Filter. An in-stack or an out-of-stack glass fiber filter is recommended if exhaust gas particulate loading is significant. An out-of-stack filter must be heated to prevent any condensation unless it can be demonstrated that no condensation occurs.

2.2 Captured Emissions Volumetric Flow Rate.

2.2.1 Method 2 or 2A Apparatus. For determining volumetric flow rate.

2.2.2 Method 3 Apparatus and Reagents. For determining molecular weight of the gas stream. An estimate of the molecular weight of the gas stream may be used if it can be justified.

2.2.3 Method 4 Apparatus and Reagents. For determining moisture content, if necessary.

3. DETERMINATION OF VOLUMETRIC FLOW RATE OF CAPTURED EMISSIONS

3.1 Locate all points where emissions are captured from the affected facility or exhausted from the temporary total enclosure (TTE). Using Method 1, determine the sampling points. Be sure to check each site for cyclonic or swirling flow.

3.2 Measure the velocity at each sampling site at least once every hour during each sampling run using Method 2 or 2A.

4. DETERMINATION OF VOC CONTENT OF CAPTURED EMISSIONS

4.1 Analysis Duration. Measure the VOC responses at each captured emissions point during the entire test run or, if applicable, while the process is operating. If there are a multiple captured emissions locations, design a sampling system to allow a single FIA to be used to determine the VOC responses at all sampling locations.

4.2 Gas VOC Concentration.

4.2.1 Assemble the sample train as shown in Figure 1. Calibrate the FIA according to the procedure in Section 5.1.

4.2.2 Set the dilution ratio and determine the dilution factor according to the procedure in Section 5.3.

4.2.3 Conduct a system check according to the procedure in Section 5.4.

4.2.4 Install the sample probe so that the probe is centrally located in the stack, pipe, or duct, and is sealed tightly at the stack port connection.

4.2.5 Inject zero gas at the calibration valve assembly. Measure the system response time as the time required for the system to reach the effluent concentration after the calibration valve has been returned to the effluent sampling position.

4.2.6 Conduct a system check before and a system drift check after each sampling run according to the procedures in Sections 5.2 and 5.4. If the drift check following a run indicates unacceptable performance, the run is not valid. The tester may elect to perform system drift checks during the run not to exceed one drift check per hour.

4.2.7 Verify that the sample lines, filter, and pump temperatures are $120 \pm 5^{\circ}\text{C}$.

4.2.8 Begin sampling at the start of the test period and continue to sample during the entire run. Record the starting and ending times and any required process information as appropriate. If multiple captured emission locations are sampled using a single FIA, sample at each location for the same amount of time (e.g., 2 minutes) and continue to switch from one location to another for the entire test run. Be sure that total sampling time at each location is the same at the end of the test run. Collect at least 4 separate measurements from each sample point during each hour of testing. Disregard the measurements at each sampling location until two times the response time of the measurement system has elapsed. Continue sampling for at least 1 minute and record the concentration measurements. If the data acquisition system does not have any provision for recording readings that are off scale, treat any off scale reading as if it were equal to the span value.

4.3 Background Concentration.

4.3.1 Locate all NDO's of the TTE. A sampling point shall be centrally located outside of the TTE at 4 equivalent diameters from each NDO, if possible. If there are more than 6 NDO's, choose 6 sampling points evenly spaced among the NDO's.

4.3.2 Assemble the sample train as shown in Figure 2. Calibrate the FIA and conduct a system check according to the procedures in Sections 5.1 and 5.4.

4.3.3 Position the probe at the sampling location.

4.3.4 Determine the response time, conduct the system check and sample according to the procedures described in Sections 4.2.4 to 4.2.7.

4.4 Alternative Procedure. The direct interface sampling and analysis procedure described in Section 7.2 of Method 18 may be used to determine the gas VOC concentration. The system must be designed to collect and analyze at least one sample every 10 minutes.

5. CALIBRATION AND QUALITY ASSURANCE

5.1 FIA Calibration and Linearity Check. Make necessary adjustments to the air and fuel supplies for the FIA and ignite the burner. Allow the FIA to warm up for the period recommended by the manufacturer. Inject a calibration gas into the measurement system after the dilution system and adjust the back-pressure regulator to the value required to achieve the flow rates specified by the manufacturer. Inject the zero- and the high-range calibration gases and adjust the analyzer calibration to provide the proper responses. Inject the low- and mid-range gases and record the responses of the measurement system. The calibration and linearity of the system are acceptable if the responses for all four gases are within 5 percent of the respective gas values. If the performance of the system is not acceptable, repair or adjust the system and repeat the linearity check. Conduct a calibration and linearity check after assembling the analysis system and after a major change is made to the system.

5.2 Systems Drift Checks. Select the calibration gas that most closely approximates the concentration of the diluted captured emissions for conducting the drift checks. Introduce the zero and calibration gas at the calibration valve assembly and verify that the appropriate gas flow rate and pressure are present at the FIA. Record the measurement system responses to the zero and calibration gases. The performance of the system is acceptable if the difference between the drift check measurement and the value obtained in Section 5.1 is less than 3 percent of the span value. Conduct the system drift check at the end of each run.

5.3 Determination of Dilution Factor. Inject the dilution check gas into the measurement system before the dilution system and record the response. Calculate the dilution factor using Equation 3.

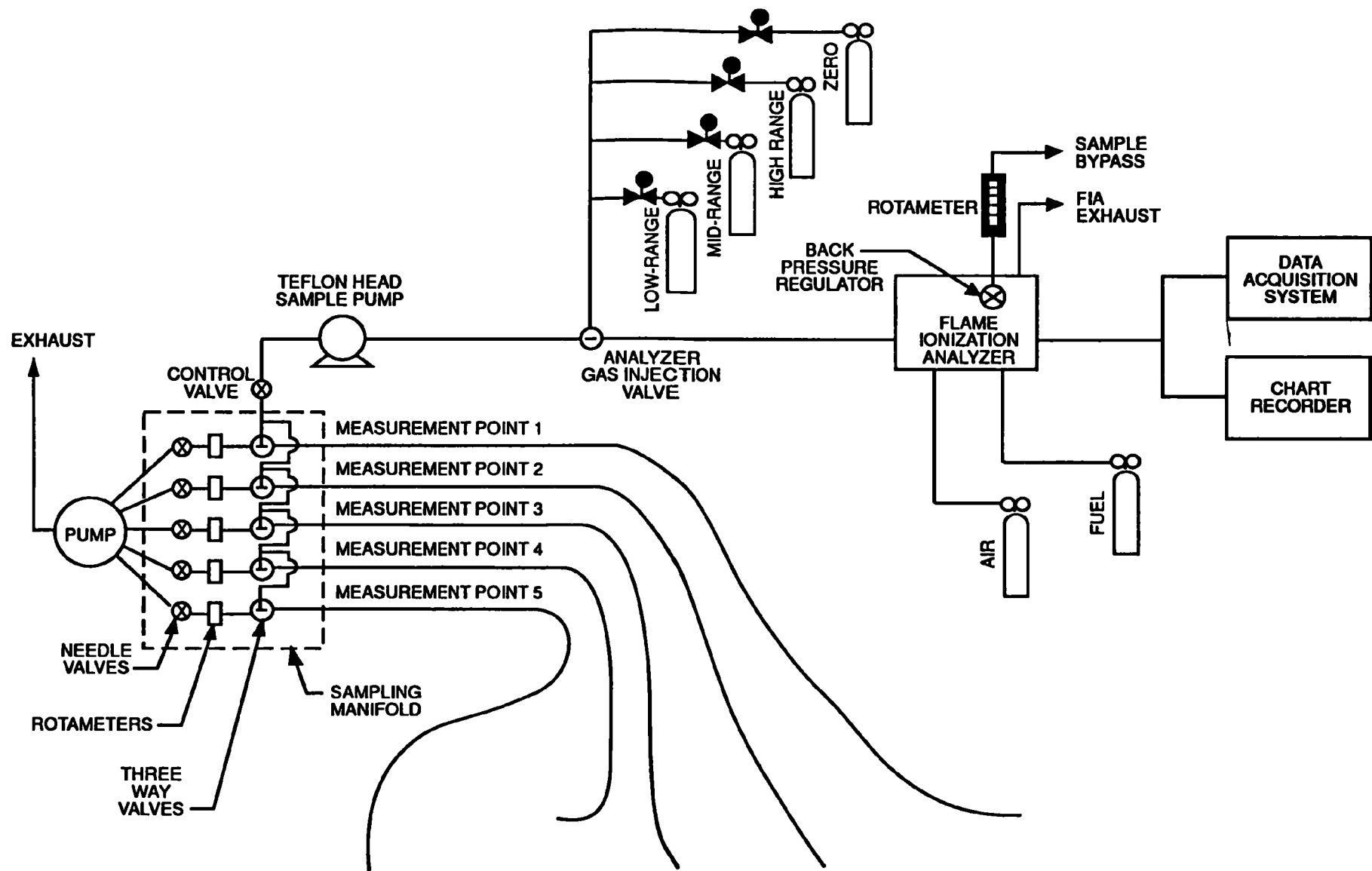


Figure 2. Backflow and measurement system.

5.4 System Check. Inject the high range calibration gas at the inlet to the sampling probe while the dilution air is turned off. Record the response. The performance of the system is acceptable if the measurement system response is within 5 percent of the value obtained in Section 5.1 for the high range calibration gas. Conduct a system check before and after each test run.

5.5 Analysis Audit. Immediately before each test analyze an audit cylinder as described in Section 5.2. The analysis audit must agree with the audit cylinder concentration within 10 percent.

6. NOMENCLATURE

C_A = actual concentration of the dilution check gas, ppm propane.

C_{B_i} = corrected average VOC concentration of background emissions at point i, ppm propane.

C_B = average background concentration, ppm propane.

C_{DH} = average measured concentration for the drift check calibration gas, ppm propane.

C_{D0} = average system drift check concentration for zero concentration gas, ppm propane.

C_H = actual concentration of the drift check calibration gas, ppm propane.

C_i = uncorrected average background VOC concentration measured at point i, ppm propane.

C_j = uncorrected average VOC concentration measured at point j, ppm propane.

C_M = measured concentration of the dilution check gas, ppm propane.

DF = dilution factor.

G = total VOC content of captured emissions, kg.

$K_1 = 1.830 \times 10^{-6} \text{ kg}/(\text{m}^3\text{-ppm})$.

n = number of measurement points.

Q_{G_j} = average effluent volumetric flow rate corrected to standard conditions at captured emissions point j, m^3/min .

θ_c = total duration of capture efficiency sampling run, min.

[illegible]



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

AUG 5 1988

But
cc: Sect. Chiefs
John
de Vries
W. R. Roper
for
approval
John
CAT 88ed.
BIO

MEMORANDUM

SUBJECT: Identifying and Expediting SIP Revisions that Impact the Enforcement Process

FROM: John S. Seitz, Director *John Seitz*
Stationary Source Compliance Division
Office of Air Quality Planning and Standards

Michael S. Alushin *WC Roper for*
Associate Enforcement Counsel for Air
Office of Enforcement and Compliance Monitoring

TO: Air Management Division Directors
Regions I, III, and IX

Air and Waste Management Division Director
Region II

Air, Pesticides and Toxics Management Division
Directors
Regions IV and VI

Air and Radiation Division Director
Region V

Air and Toxics Division Directors
Regions VII, VIII, and X

Regional Counsels
Regions I-X

We are providing an additional means to help you manage the process of reviewing proposed revisions to State Implementation Plans (SIPs) under the Clean Air Act. One area of difficulty is where delay in reviewing a proposed change undermines your ability to enforce the current version of a SIP.

We have agreed with John Calcagni, Director, Air Quality Management Division, that you may use the OECM Case Docket as a way to alert Headquarters to SIP processing delays which may impact a referral action. As you know, a case enters the Docket once the litigation report has been received by Headquarters. Among the many pieces of information tracked in the Docket is a field called "Regional Comments". This field is updated monthly by Regional Counsel and read by the Headquarters staff attorney to learn about the most recent events affecting the case. We suggest that the Regional comment field be used as the means for you to describe your understanding on the status, location, and expected future action of a SIP revision affecting the case. SIP revisions received by the Region but not yet forwarded to Headquarters should be noted in the comment field along with how the revision impacts the case. In the future, OAQPS's computerized SIP TRAX system will be expanded to also include information on SIPs being processed by the Region and whether the revision impacts an enforcement action.

The OECM-AED attorneys will share the Docket updates with SSCD's Regional Programs Section (RPS) on a monthly basis and they will alert their respective management to issues/needs noted in these updates. Of course, should a matter that needs a quicker response arise, a call to RPS (Gerard A. Kraus FTS 382-2847) or the OECM-Air Enforcement Division (Elliott Gilberg FTS 475-7089) is welcome.

SIP revisions that impact a significant violator also need to be expeditiously reviewed. To alert Headquarters to this, the SIP's transmittal memo should clearly state that the revision impacts a significant violator.

Where SSCD learns from Docket reviews or a transmittal memo that SIP revisions in Headquarters need to be expedited because they impact a current referral, forthcoming referral or a significant violator source, SSCD (RPS) will alert Johnnie Pearson in AQMD (FTS 629-5691) on an ongoing basis. As mentioned above, the SIP TRAX system will soon note if revisions impact an enforcement action. He will then notify the Headquarters reviewing offices of the need to complete their reviews in a timely fashion. Johnnie will also monitor those SIPs that have to go through OMB to minimize delays there. On a monthly basis (simultaneous to reviewing the case Docket), RPS will check with Johnnie on the status of the revisions previously identified as needing expeditious review and attempt to get outstanding problems resolved.

For you to benefit from this process, it is imperative that Regional Counsel complete their monthly Docket updates in a timely fashion and the Regional air programs (including compliance) be involved. It is also necessary that the memorandum transmitting a SIP revision to Headquarters note that the revision impacts a referral, will impact a referral, or impacts a significant violator source. This will give Headquarters two avenues (the Docket and the SIP's transmittal memo) for knowing whether certain SIPs need to be expedited.

Please start identifying SIP revisions which affect referrals in the August Docket update. Regions should already be noting the needed information in the SIP's transmittal memo (see attached memo). For SIP revisions that are in Headquarters and impact a significant violator, the Regions need to alert their Regional liaison in SSCD as soon as possible of these revisions so they can be expedited.

Please call Gerard C. Kraus (382-2847) in SSCD or Elliott Gilberg (475-7089) in the OECM-Air Enforcement Division, if you have questions.

Attachment

cc: Edward Reich, OECM
Sally Mansbach, OECM
John Calcagni, AQMD
Johnnie Pearson, AQMD

Air Compliance Branch Chiefs
Regions II, III, IV, V, VI and IX

Air Program Branch Chiefs
Regions I - X

Regional Counsel Air Contacts
Regions I-X



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 14 1988

OFFICE OF
AIR AND RADIATION

MEMORANDUM

SUBJECT: Pending SIP Revisions Which Affect Active Air
Enforcement Cases

FROM: John S. Seitz, Director *John S. Seitz*
Stationary Sources Compliance Division
Office of Air Quality Planning and Standards

TO: Air Management Division Directors
Regions I, III and IX

Air and Waste Management Division Director
Region II

Air, Pesticides, and Toxics Management Division
Directors
Regions IV and VI

Air and Radiation Division Director
Region V

Air and Toxics Division Directors
Regions VII, VIII and X

I would like to thank you and your staff for the cooperation you gave in helping OECM-AED prepare the attached memorandum. I and John Calcagni will do our best to expedite the processing of these pending SIPs and will keep you informed of our progress.

Since this exercise only addressed SIPs officially in Washington, we need to begin identifying SIPs within the region but not yet submitted to Washington that have Federal enforcement action initiated. When these SIPs are forwarded to us, please clearly note that expeditious processing is needed due to its effect on the enforcement action.

-2-

Thank you again for your help.

Attachment

cc: Air Compliance Branch Chiefs
Regions II, III, IV, V, VI and IX

Air Program Branch Chiefs
Regions I, VII, VIII and X

John Calcagni, AQMD



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D C 20460

APR - 6 1988

OFFICE OF
ENFORCEMENT AND
COMPLIANCE MONITORING

MEMORANDUM

SUBJECT: Pending SIP Revisions Which Affect Active
Air Enforcement Cases

FROM: Michael S. Alushin *Michael S. Alushin*
Associate Enforcement Counsel
Air Enforcement Division

TO: John Calcagni, Director
Air Quality Management Division

During the past few months the Air Enforcement Division has worked with Denise Gerth at the Regional Operations Branch, Air Quality Management Division, to determine which pending SIP revisions affect active air enforcement cases. We have attached a list of those revisions. Several of the enforcement cases are being reviewed by the court because of the pending SIP revisions. The sources are seeking remedies for lower penalties, a stay of enforcement and/or dismissal of the case because of a pending revision. Therefore, an expedited review of the SIP revisions would benefit the enforcement case. We are not suggesting that the revisions should be approved or disapproved -- simply that prompt decisions are needed.

Denise Gerth has been very helpful in identifying pending SIP revisions at Headquarters and the Office of Management and Budget. We appreciate the assistance we have received and the offer to expedite these revisions. Please contact Elizabeth Edmonds at FTS 382-4577 about changes in the review status of these revisions.

Attachment

cc: Regional Counsels
Regions I, IV, V, VI, and IX

Regional Counsel Air Contacts
Regions I, IV, V, VI and IX

Air Management Division Directors
Regions I and IX

Air and Radiation Division Director
Region V

Air, Pesticides and Toxics Management Division Directors
Regions IV and VI

Alan Eckert
Office of General Counsel

Rich Ossias
Office of General Counsel

David Buente, Chief
Environmental Enforcement Section
Department of Justice

Robert Van Heuvelen, Assistant Chief
Environmental Enforcement Section
U.S. Department of Justice

John Seitz, Director
Stationary Source Compliance Division

Alex Cristofaro
Office of Policy, Planning and Evaluation

SIP Revisions Pending at Headquarters
and OMB Which Affect Enforcement Cases

Region I

Massachusetts

3427. Disapproval of Extended Compliance Date for GM
Framingham
final disapproval to OMB: 4/5/88

Region IV

Kentucky

3471. Disapproval of Bubble for Alcan Foil Products for
VOC.
end of Hdqtrs. concurrence period: 9/25/87

Region V

Illinois

3432. Disapproval of VOC Ext. Compliance Schedule for Getty,
All Steel, St. Charles, National American, & U.S. Can
end of Hdqtrs. concurrence period: 3/28/88.
3515. Disapproval of an ACS for GE for Ozone (bubble)
end of Hdqtrs. concurrence period: 11/5/87
3530. Disapproval of Redesignation for Kane & Dupage Counties
for Ozone.
end of Hdqtrs. concurrence period: 12/4/87

Ohio

3337. Disapproval of VOC "Bubble" for Champion International
Corp.'s Dairypak Div.
revised SIP revision to Hdqtrs: 3/2/88 (per Region)
end of Hdqtrs. concurrence period: 5/26/87
3431. Disapproval of GM's Lordstown Facility for VOC
end of Hdqtrs. concurrence period: 3/30/88
3455. Disapproval for VOC relaxation for Navistar
end of Hdqtrs. concurrence period: 3/28/88

Region VI

Louisiana

3580. Disapproval to Exempt Sid Richardson Carbon & Gasoline
from Acetylene Emission Control
end of Hdqtrs. concurrence period: 4/04/88

Texas

3331. Alternate Emission Reduction of VOC for Continental
Can Co. (VOC Emission Limits)
end of Hdqtrs. concurrence period: 4/22/87

Region IX

California

3103. Disapproval of 3 VOC Architectural Coating Rulings.
end of Hdqtrs. concurrence period: 11/7/86
date received by OMB: 12/11/86
3488. Approval of Two VOC Rules for San Diego Co.
end of Hdqtrs. concurrence period: 10/21/87
3490. Approval and Disapproval of Can Coating Rules for VOC
end of Hdqtrs. concurrence period: 10/22/87
3590. Disapproval of a Revised SCAQMD Rule Controlling VOC
Emissions from New Auto Coating Operations
end of Hdqtrs. concurrence period: 3/14/88

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[illegible]



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711
March 22, 1991

CC. LN
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AA
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SPEL
BIB

MEMORANDUM

SUBJECT: Processing of Pending Revisions to Federally-approved State Implementation Plans (SIP's)

FROM: John Calcagni, Director
Air Quality Management Division (MD-15)

TO: Director, Air, Pesticides, and Toxics
Management Division, Regions I, IV, VI
Director, Air and Waste Management Division,
Region II
Director, Air Management Division,
Regions III and IX
Director, Air and Radiation Division,
Region V
Director, Air and Toxics Division,
Regions VII, VIII, X

In a memorandum dated December 5, 1990, I requested that you temporarily suspend the processing of State-submitted requests for modification of the federally-approved SIP actions. In that memorandum, I indicated SIP processing could resume after January 15, 1991. As I indicated, the purpose of this hiatus was to provide a short period of time in which the Regional Offices and Headquarters could define the basic requirements and changes imposed by the 1990 Amendments to the Clean Air Act (Act). The purpose of this memorandum is to reinstitute processing of SIP revisions under certain conditions.

A major impact of the Amendments on the preparation of Federal Register notices for all SIP revisions submitted by the State to the Regional Office prior to November 15, 1990 is the requirement that all notices must address the impact of the 1990 Amendments on the approvability of such State submissions. The impact of the Amendments will vary from having no impact to requiring disapproval of actions that previously may have been approvable. All Federal Register notices taking action on a SIP revision request submitted to the Environmental Protection Agency (EPA) prior to November 15, 1990 must contain a statement indicating that EPA has reviewed the submittal in accordance with the 1990 Amendments. I have attached general boilerplate language that should appear in each notice taking action on any State submission received prior to November 15, 1990 (Attachment 1).

With regard to the potential impact of the 1990 Amendments on the processing of specific SIP revisions, the Office of General Counsel and my staff have prepared guidance describing circumstances where the 1990 Amendments affect the approvability of SIP revisions (Attachment 2). This guidance is to be used in reviewing and processing all SIP revisions whether or not the revision was submitted prior to the enactment of the 1990 Amendments. The attached guidance is not intended to address all of the issues that surround SIP approvability under the 1990 Amendments and will certainly require further expansion to address individual circumstances. If you find that the attached does not address a particular case, we will be glad to assist in determining how the Agency should make a final decision.

It is important to notice that the attached paper addresses six main types of SIP revision requests. Many of these situations will result in a determination that the SIP submission does not meet the requirements of the amended Act. The basic reason is a "savings clause" that is part of the 1990 Amendments. The "savings clause" restricts States from relaxing any existing SIP requirement without achieving equivalent emission reductions. In addition, the 1990 Amendments require that all areas prior to being redesignated to attainment have an approved maintenance plan. As a result, you have been asked to notify the affected States by the "RA letter" that pending requests for redesignation to attainment may not be "complete" within context of the 1990 Amendments. Since these requests may not be complete, we do not believe we are required to process the request. While the maintenance requirement is not stated in the Agency's current criteria, we believe the Amendments make such a requirement effective upon enactment. We should urge those States with pending redesignation requests without a maintenance demonstration to withdraw them from consideration unless there are extenuating circumstances that are agreed to by Headquarters.

With regard to bubbles, the final Emissions Trading Policy Statement remains generally in effect. There may, however, be certain circumstances where current bubble requirements should be modified or reinterpreted in light of the changed circumstances brought about by the Amendments. We will be forming a work group within the next month with Regional Office participation to address this issue. If you have a pressing need to process an emission trading action where there are questions regarding approvability, you must discuss this action with Headquarters before proceeding.

It is imperative that we examine the impact of the 1990 Amendments closely as we do not wish to inadvertently approve or disapprove actions and have these issues addressed in judicial review prior to an opportunity to develop appropriate Agency policy. Some of our actions likely will result in disapprovals of SIP revisions that may previously have been approved. It is

important that we understand and communicate to the States that where the Act is clear, it overrides the "grandfathering" policy (54 FR 2219, January 19, 1989) because of the statutory changes that no longer permit us to approve the original submission. If, however, where the Act is vague or for other reasons you believe that a case is to be made for grandfathering a particular action, this must be fully coordinated with the appropriate Headquarters office prior to processing the revision.

The Regional Offices have the primary responsibility for ensuring that each Federal Register notice is reviewed for conformance with the provisions of the 1990 Amendments and for inserting the appropriate language with regard to EPA's review of the applicability of the 1990 Amendments. This will require that each Regional Office examine all Table 3 SIP actions, make the changes as indicated in the attachment, and incorporate the appropriate language indicating EPA review. I would encourage you to be cautious on any approval and suggest your staff coordinate with the specific Headquarters program staff or attorney prior to a final decision to approve these types of actions. I would also remind you that where the issues may be more complicated than described here, you may reclassify a Table 3 action to either Table 2 or Table 1.

It will be the primary responsibility of each Regional Office to review all unpublished Table 2 actions. For Table 2 actions that were held in Headquarters pending this memorandum, I am initiating a new review cycle. Due to the number of actions involved and in order to provide sufficient time for Headquarters reviewers to re-examine these actions, I am establishing a Headquarters review completion date 45 days from the date of this memorandum for these actions. Headquarters reviewers will, as appropriate, provide comments to the Regional Office. Please be aware that all actions submitted prior to November 15, 1990 must have the appropriate boilerplate language added prior to signature by the Regional Administrator. This comment will be appended to the review comments on all Table 2 SIP actions. All Table 2 actions which have previously completed the 30-day Headquarters review must be reviewed by the Regional Office for consistency with the attached guidance and must have the appropriate boilerplate added prior to signature by the Regional Administrator. I encourage you, if there is any doubt regarding the approvability of Table 2 actions that will not again receive Headquarters review, to contact the Headquarters program and legal staff prior to publication of any such action.

With regard to Table 1 actions that have not yet been published, while we will not physically return these notices to the Regional Office, I am requesting that you review each action for applicability under the 1990 Amendments. Where the action taken by the existing notice is still appropriate, my staff will work with the Regional Office staffs to insert the attached

boilerplate language. In some cases, Table 1 notices will be returned to the Regional Office for redrafting on the basis that the Agency action is no longer appropriate. My staff will work with you to make the changes and proceed as quickly as possible to publication of Table 1 notices.

Questions regarding the approvability of a specific action or additional areas of policy that are not addressed in the attachment should be directed to the appropriate program branch within AQMD in coordination with the program attorney in the Office of General Counsel.

If you have any questions regarding the above process or if we can otherwise assist in expediting the process of determining the approvability of any action based upon the 1990 Amendments, please contact either Johnnie Pearson, (FTS) 629-5691, Pam Johnson, (FTS) 629-5270, (AQMD), or Jan Tierney, (FTS) 382-7709 (OGC), for assistance.

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Attachments

cc: Regional Air Program Branch Chiefs
 Regional Counsel, Regions I - X
 Ron Campbell, OAQPS
 Denise DeVoe, OAQPS
 Gene Durman, Office of the Administrator
 Alan Eckert, OGC
 Greg Foote, OGC
 Barry Korb, OPPE
 Rich Ossais, OGC
 John Rasnic, SSCD
 John Seitz, OAQPS
 Mike Shapiro, OAR
 Lydia Wegman, OAQPS
 Larry Weinstock, OAR
 AQMD Branch Chiefs

Attachment 1

Approval Boilerplate

The Agency has reviewed this request for revision of the federally-approved State implementation plan for conformance with the provisions of the 1990 Amendments enacted on November 15, 1990. The Agency has determined that this action conforms with those requirements irrespective of the fact that the submittal preceded the date of enactment.

Disapproval Boilerplate

The Agency has reviewed this request for revision of the federally-approved State implementation plan for conformance with the provisions of the 1990 Amendments enacted on November 15, 1990. The Agency has determined that this action does not conform with the statute as amended and must be disapproved. The Agency has examined the issue of whether this action should be reviewed only under the provisions of the law as it existed on the date of submittal to the Agency (i.e., prior to November 15, 1990) and has determined that the Agency must apply the new law to this revision.

Attachment 2

The Effect of the Clean Air Act Amendments of 1990 on Pending SIP Revision Requests

The Effect of the Clean Air Act Amendments of 1990 on Pending SIP Revision Requests

The enactment of the Clean Air Act Amendments of 1990 raises the question of how these new provisions will affect SIP revision requests currently pending before EPA. While the Amendments extend the date for attaining the national ambient air quality standards (NAAQS), they place restrictions on relaxing any existing or planned compliance requirements. The EPA receives several common types of SIP revision requests: relaxations from Reasonably Available Control Technology (RACT), alternative RACT, extensions of the compliance date, bubbles (relaxations from RACT that are offset by at least equivalent reductions elsewhere), and strengthenings of the SIP that do not meet all of the applicable requirements of the Act.

This paper examines the effect of various provisions in the Amendments on the types of SIP revision requests listed above, as well as redesignation requests. In general, the Amendments place more stringent requirements on nonattainment areas that are seeking to alter requirements under a SIP. It will be necessary for these changes to be addressed in any action EPA takes on these requests. In most instances, EPA may be required only to address the changes and interpret why they support a conclusion the Region has already reached. We anticipate that in some instances, the Amendments may require EPA to disapprove an action EPA originally considered approving. In either case, however, it will be necessary for the Region involved to articulate in the Federal Register notices the effect of the Amendments as explained in the guidance set forth below.

BACKGROUND

The Amendments provide from 3 to 20 years for nonattainment areas to meet the NAAQS, depending on the pollutant and the classification of the area. Although the attainment deadlines may be extended, this is not meant as a means of relieving nonattainment areas of the burden of reducing emissions as expeditiously as practicable. Rather, the attainment deadlines were extended because some of the deadlines under the 1977 Act had passed, and many areas still had not attained. Therefore, the attainment deadline extensions are provided as more realistic dates for attainment based on future reductions beyond what has already occurred. Weakening existing SIP's is inconsistent with that goal. As discussed below, several provisions of the Amendments indicate that nonattainment areas still must comply with certain requirements of the pre-amended Act.

First, the provision specifically addressing SIP revisions prohibits EPA from approving any SIP revision that would interfere with any requirement concerning attainment, reasonable further progress (RFP), or any other requirement of the Act [§110(1)]. As with the pre-amended Act, attainment of the ozone NAAQS must be reached as expeditiously as practicable [see

§172(a)(2)(A); §181(a)(1)]. Therefore, any SIP revision that postpones the attainment date previously approved as part of the SIP without demonstrating that the attainment date is impracticable must be rejected.

Beyond that, under the pre-amended Act, all nonattainment area SIP's were required to provide for the implementation of RACT as expeditiously as practicable [§172(b)(3) (incorporating the definition of RFP in §171 which refers to the requirement in §172(a) for attainment as expeditiously as practicable)]. The general nonattainment provisions of the Amendments apply the same requirement (although in somewhat different form) [§172(c)(1) ("implementation of reasonably available control measures (RACM) as expeditiously as practicable including . . . reasonably available control technology . . . ")]. For ozone nonattainment areas, the Amendments expressly provide that these areas correct or add RACT that was required under the pre-amended Act [§182(a)(2)(A)]. This requirement indicates that the Amendments were not intended to override previous RACT requirements, but rather to ensure they remain in place. New RACT requirements under the Amendments are intended to supplement RACT requirements that should already be in the SIP.

Beyond the RACT requirements, the savings clause (§193) specifically states that changes to the SIP that result in fewer emissions reductions may not be approved unless "equivalent" emission reductions are met elsewhere:

No control requirement in effect, or required to be adopted by an order, settlement agreement, or plan in effect before the date of the enactment of the Clean Air Act Amendments of 1990 in any area which is a nonattainment area for any air pollutant may be modified after such enactment in any manner unless the modification insures equivalent or greater emission reductions of such air pollutant.

The savings clause indicates that the Amendments are meant as a means not of by-passing previous requirements, but rather of ensuring equivalent or greater reductions in emissions.

We are inclined to construe the term "equivalent reductions" to mean that the emission reductions must occur during the same time period in which it would have been reasonable for the source to comply with the SIP. In the case where EPA agrees that it was not reasonable for the source to meet the existing SIP requirements (including the compliance date), equivalent reductions are required for the prospective term of the relaxation (i.e., the remaining time following EPA action on the revision that the relaxation will be in effect). Where EPA has determined that it was reasonable for the source to meet the SIP requirements, the equivalent reductions must occur during the

same time period that the source was originally required to meet the limit.

In either case, the equivalent offsetting emission reductions must be surplus, enforceable, permanent, and quantifiable as defined in EPA's Emissions Trading Policy Statement (ETPS) (51 FR 43850, December 4, 1986) to be valid. As mentioned under item 4, EPA is forming a work group to address how the Amendments affect the ETPS. In the interim, however, the criteria in the ETPS should be used to evaluate the acceptability of offsetting emission reductions.

In addition, the reductions must come from sources in the same nonattainment area as the source(s) seeking the modification to the control requirement. Other criteria may apply for other pollutants (e.g., modeling to ensure continued attainment and maintenance). We also interpret the savings clause to apply only to nonattainment areas within a State, not the entire State, and to apply only to such pollutants for which the area is designated nonattainment.

The following discussion attempts to apply these requirements to specific types of common SIP revisions. The discussion sets forth several independent factors to be considered in analyzing these revisions. Much of it, however, could logically apply to analogous types of SIP revisions for other pollutants.

1. Relaxation from RACT

A request to relax RACT requirements seeks to relieve a source from complying with what EPA has determined to be RACT and which is already contained in the SIP. In this context, we are referring to a permanent release from existing RACT requirements already in the SIP by application of something less than RACT and without equivalent offsetting emission reductions. [NOTE: if this had included equivalent offsetting reductions, it might be considered a bubble (discussed in 4 below), which EPA historically has said may meet the statutory requirement.]

--Under §110(1), EPA cannot approve revisions that interfere with meeting the RACT requirements of §172(c)(1) and §182(a)(2)(A). Since this would be a relaxation to a level that is not as stringent as RACT, it interferes with the ability of the SIP to meet the RACT requirements. Specifically for nonattainment areas subject to the ozone subpart, §182(a)(2)(A) requires these areas to correct or add RACT requirements so as to comply with pre-amended §172(b). In light of this specific requirement to upgrade RACT to, at a minimum, that required under the pre-amended Act, it would be inconsistent to allow any weakening from that level of RACT. This would be one ground for disapproval of a RACT relaxation.

This paragraph only applies if the source in question was required to meet RACT under the Act immediately prior to enactment of the 1990 Amendments. For instance, areas that did not receive post-1982 attainment date extensions and that did not receive a post-1982 SIP call were only required to adopt RACT rules for major (greater than 100 tons per year) sources in the Group I and II Control Techniques Guidelines (CTG) categories. Any smaller source in such an area would not have been required to meet RACT and, therefore, would not be covered by this paragraph. The savings provision discussed below would still apply.

--Second, under the savings clause, an equivalent reduction must be made in order for the SIP revision to be acceptable. The reductions, in this case, must occur during the same time period as required by the SIP. Failure to provide for such reductions would be an additional independent ground for disapproval.

2. Alternative RACT

Alternative RACT involves a different type of control from what EPA and the State previously determined to be RACT and which is already contained in the SIP. A source or State will argue that the previously-selected RACT is not RACT; rather, they suggest, and EPA agrees, that a different type of control is the "true" RACT. Here we are discussing alternative RACT that does not achieve an amount of reductions equivalent to what would be achieved by the previously-selected RACT which is already in the SIP.

--Under the savings clause, any alternative RACT that is less stringent than the RACT set by EPA must be supported by emission reductions elsewhere to achieve emission reductions at least equivalent overall in the nonattainment area. The EPA is prohibited from approving an alternative RACT that decreases emission reductions, unless equivalent reductions are made elsewhere within the same nonattainment area. Thus, the absence of such equivalent reductions requires disapproval.

As discussed in the "Background," where EPA has agreed with the State's alternative RACT evaluation, the emission reductions must be obtained for the duration of the relaxation. For alternative RACT this will generally require a permanent reduction from the time of approval of the revision.

3. Compliance Date Extensions

Compliance date extensions are similar to relaxations from RACT. They are distinguishable in that they provide for the implementation of RACT, but extend the compliance date that EPA previously approved as being as expeditious as practicable. The extension may not cause the nonattainment area to miss its

attainment date, but additional net emissions will occur during some period of time before the attainment date.

--Under §110(1), SIP revisions cannot interfere with attainment, reasonable further progress (RFP), or any other requirement of the Act. Compliance date extensions (to dates other than what was as expeditiously as practicable) interfere with the requirement that RACT be implemented "as expeditiously as practicable" [§172(c)(1)]. This is one ground for disapproving such extensions.

--Beyond that, for ozone nonattainment areas, if RACT that was required under EPA's guidance interpreting §172(b)(3) of the pre-amended Act is not in place, it must be corrected or added [§182(a)(2)(A)]. The EPA's guidance on RACT under pre-amended §172(b)(3) called for implementation of RACT as expeditiously as practicable. Where a SIP meets that guidance, this provision prevents a relaxation from the guidance. Thus, under §110(1), any compliance date extension to a date later than what was as expeditious as practicable interferes with the requirement to correct RACT per EPA's pre-enactment guidance. This is a supplemental ground for disapproval (related to the first ground).

--In addition, under the savings clause (§193) equivalent offsetting emission reductions must be obtained. Where EPA has determined that the original SIP compliance date was reasonable, the emission reductions must occur during the same time period as required by the original SIP compliance date. Where EPA determines that the SIP schedule was unreasonable, the reductions must be achieved for the remainder of the extension period, starting from the date of EPA's approval. (Where the new compliance date has already passed by the time EPA acts on the revision, no reductions are required for the period before or after EPA's action on the extension.) The EPA must disapprove the revision if it does not provide for the required emission reductions.

4. Bubbles

A bubble involves an increase in emissions (above traditional RACT levels) that is compensated by a decrease in emissions at another point in the nonattainment area, with equivalent or better ambient air results.

--We have determined that the final ETPS remains generally intact and meets the "equivalent reduction" test set out in §193 of the amended Act and the RACT requirements of the amended Act. We have not yet prepared boilerplate language articulating the rationale. There may be, however, certain situations where current bubble requirements should be modified or reinterpreted in light of changed circumstances brought about by the 1990

Amendments. We will be forming a work group within the next month with Regional Office participation to address these issues. Meanwhile, Regions should consult closely with Headquarters when processing bubble actions, particularly where these actions involve (1) approvals in attainment or unclassified areas slated for redesignation as nonattainment, (2) approvals in nonattainment areas where the bubble involves more than one CTG source category (or both CTG and non-CTG sources), (3) approvals involving nitrogen oxides (NOx) bubbles in areas that are designated attainment for NOx but nonattainment for ozone, (4) disapprovals in nonattainment areas lacking an approved attainment demonstration where those disapprovals stem only from the failure to meet the special "progress requirements" applicable to bubbles in those areas, and (5) any case where it is unclear whether an area is a nonattainment area needing but lacking an approved demonstration (unless the requirements of the ETPS for such an area are met).

5. Strengthenings of the SIP

In many instances, a State's submission of a SIP or SIP revision will include a provision that does not comport with one or more applicable requirements of the Act. Some submittals, however, will serve to improve air quality by providing progress toward attainment, RFP, and/or RACT¹. Prior to the adoption of the 1990 Amendments, EPA followed a policy of approving certain SIP provisions for their strengthening effect even though the provisions did not meet all of the requirements of Part D. We have termed such an action to be a "limited approval." A limited approval, however, is not a complete action on the SIP submittal. To complete the action, EPA must, at the same time it grants a limited approval (or at some time thereafter, as discussed below), issue a limited disapproval whereby the Agency disapproves the SIP revision request for failing to meet one or more requirements of the Act.

This procedure has been endorsed, at least implicitly, by one circuit court [State of Michigan v. Thomas, 805 F.2d 176 (6th Cir. 1986) (EPA may properly approve a rule for "maintenance of air quality" while disapproving it under Part D)]; but see Abramowitz v. U.S. EPA, 832 F.2d 1071 (9th Cir. 1988) (holding that where a State has made a required submittal and the due date for the submittal has now passed, EPA may not approve part of the submittal for its strengthening effect if it takes no action on whether the submittal meets other applicable requirements of the

¹ These cases may be distinguished from those under categories 1, 2, and 3 because they involve a strengthening of what is already included in the SIP. In the other three categories, the SIP revision request proposes an alternative that weakens the existing SIP requirements.

Act; but not addressing whether EPA may simultaneously approve part of a SIP for its strengthening effect and disapprove it for failure to comply with those requirements). We have determined that the amended Act neither alters EPA's prior interpretation of the law nor overrules the State of Michigan v. Thomas or Abramowitz v. U.S. EPA decisions. Rather, the Amendments expand the language concerning approval of all or part of a SIP without addressing the issue of whether EPA may approve provisions that strengthen the SIP but do not meet all of the requirements of Part D.

Partial Approval: Section 110(k) guides the Agency's action on plan submissions. Once EPA determines that a plan submission is complete, the Agency must approve or disapprove the submission within 12 months [§110(k)(2)]. Section 110(k)(3) expressly provides for the circumstance where the entire submittal meets all applicable requirements of the Act, or a separable portion of the submittal meets all applicable requirements. In such circumstances, EPA must approve those portions that meet all the applicable requirements of the Act and disapprove those that do not².

Limited Approval: Section 110(k)(3), however, leaves a gap; a submittal may contain provisions which are not separable, but that meet the requirements of the Act. Under the general authority of §301(a) to adopt regulations necessary to implement the Act, and in furtherance of the goals of the Act "to protect and enhance" the quality of the air [§101(b)(1)], we interpret §110(k)(3) also to allow "limited approval" of SIP provisions that have a strengthening effect, but that do not meet all requirements of the Act³.

Time Limit for EPA Action: EPA's use of limited approval must correspond with the Act's new provisions that place time

² We do not read this to override the Bethlehem Steel Corp. v. Gorsuch, 742 F.2d 1028 (7th Cir. 1984), and Indiana & Michigan Elec. Co., 733 F.2d 489 (7th Cir. 1984), decisions, which overturned partial approvals where the approved parts were integrally related to the remainder (e.g., an emissions limit and an averaging period, or an emissions limit and a test method). For situations such as this, however, a limited approval may be appropriate.

³ The Regions should consult with Headquarters on a case-by-case basis as to whether as a policy matter, EPA should grant such a limited approval to a SIP submittal.

limits on EPA's approval or disapproval of SIP submittals⁴. Hence, when granting limited approval EPA should act within 12 months of making a completeness determination. The EPA may give a limited approval to SIP submittals (for their strengthening effect) at one point in time and delay a formal finding that the submittal does not meet all of the applicable requirements. The Agency's failure to make that formal finding (and thereby take final action) prior to expiration of the 12-month period, could subject EPA to a lawsuit to compel such an action⁵.

Currently, many SIP revision requests that do not meet all of the requirements of the amended Act are pending before the Regions. Most of the SIP submittals required under the amended Act are not yet due. Where the submittal is made before it is due, EPA may grant a limited approval to the whole submittal. As an alternative, EPA may approve certain provisions that meet prospective requirements of the Act and request the State to voluntarily withdraw the other portions that are insufficient to meet future requirements. In either case, the State is not relieved from submitting an entire approvable plan by the statutorily-required submittal date.

Activating Sanctions: The timing of the submittal will affect the consequences of limited approval. If a State files the submittal after it was due, and EPA approves it for its strengthening effect, the additional finding that the submittal does not meet all applicable requirements would amount to a disapproval under §179(a)(2). The disapproval, therefore, would

⁴ Under §110(k)(2), once EPA determines that a submittal is complete, it must complete action on the submittal within 12 months. Until EPA promulgates the completeness criteria required pursuant to §110(k)(1)(A) [by August 15, 1991], the remaining timing deadlines in §110(k) do not come into effect. Until that time, EPA action on SIP revision requests is guided by the "reasonable time" principle of the Administrative Procedures Act. Beyond that, during this interim period, the Regions should continue to make completeness determinations under the existing criteria promulgated February 16, 1990, 55 FR 5824.

⁵ In those States within the Ninth Circuit (Alaska, Hawaii, Washington, Oregon, Idaho, Montana, Nevada, California, and Arizona), the failure to take final action on the SIP revision request within the 12-month review period may have stronger implications. Under the Abramowitz v. U.S. EPA ruling, a court may invalidate EPA's limited approval, on all aspects of the submittal, if final action is not taken during the applicable 12-month period. (Arguably, Abramowitz v. U.S. EPA requires that all action be taken simultaneously so that the limited approval must be accompanied by a formal finding that the submittal does not meet all of the Act's requirements.)

trigger the sanctions provisions. Under §110(m), EPA would have discretion to apply sanctions immediately upon making such a finding (although EPA would have to have given notice of, and an opportunity to comment on, its intention to do so). Under §179, as to provisions required by Part D or in response to a SIP call, disapproval starts the 18-month countdown to the mandatory application of sanctions.

If a State makes (and EPA acts on) a submittal prior to the time that it is due, the sanctions process will not yet apply. In such a circumstance, EPA would be approving the submittal for its strengthening effect for at least the time before which the State must comply with new requirements in the Act. The sanctions clock would not start running because sanctions for disapproval only apply if the disapproval involves elements currently due under the Act [see §179(a)(2)].

Conditional Approval: Finally, under any circumstances in which a Region is considering limited approval, the Region should also consider whether a conditional approval, as defined by new §110(k)(4), would be a practical option. The EPA may conditionally approve a plan upon a commitment of the State⁶ to adopt the necessary specific enforceable measures by a date not more than 1 year from the date of approval. The EPA's finding that the State failed to meet the commitment within that year would automatically convert the conditional approval into a disapproval. Obtaining such a commitment and granting a conditional approval would benefit the Agency by providing a concrete path toward curing the deficiency. Moreover, a conditional approval would benefit the State by alleviating the possibility of sanctions for that 1-year period.

6. Redesignation to Attainment

Under §107(d)(3), every area that is currently designated nonattainment will need to meet several requirements before it will be eligible for redesignation to attainment. Among these is the requirement of §107(d)(3)(E)(iv) that the State submit a plan demonstrating maintenance of the relevant standard in accordance with new §175A. (That section requires, among other things, that maintenance plans include certain contingency measures.) Beyond that, each area that is subject to requirements of Part D will need to receive approval of a plan meeting those requirements

⁶ The Act does not explicitly require that the commitment be set forth in the SIP. We are still considering whether States may pursue another form of written commitment (e.g., a letter or a supplemental SIP submission) to take advantage of the conditional approval approach.

before it is eligible for redesignation to attainment [§107(d)(3)(E)(ii), (v)]'.

Most areas of the country that are subject to a pending redesignation request have not addressed (let alone met) the maintenance plan prerequisite for redesignation to attainment. For that reason, we asked that you notify the affected States by the "RA Letter" that their pending requests are not "complete" within the meaning of §107(d)(3)(D), and that for that reason EPA does not believe it is required to process them at this time. Headquarters will be developing guidance regarding maintenance plan requirements under the new Act to assist States in making the necessary changes to plans that are not deemed complete. Once a State submits a complete maintenance plan, its request for redesignation is renewed.

We understand that some States have submitted redesignation requests which include maintenance plans or have extenuating circumstances. The Regional Office should consult with Headquarters regarding the adequacy of the maintenance plan, or if there are any extenuating circumstances, in order to determine whether it meets the criteria of §175A of the Act. In cases where these criteria are met, as well as the other criteria of §107(d)(3), processing of the request can continue.

' For example, ozone nonattainment areas with a design value of at least .121 ppm will need to meet all of the requirements for marginal areas before they are eligible for redesignation. Also, areas that qualify as "transitional" under §185A are relieved only from the requirements of the ozone subpart. They must still meet whatever requirements of the general subpart 1 of Part D that EPA decides still apply [e.g., the RACT requirement of §172(c)(a)] and the maintenance requirements of §175A.

Notes



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

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Alon
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Steban

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MEMORANDUM

DATE: JAN 31 1989

SUBJECT: New SIP Processing Procedures

FROM: Douglas Neeley, Chief
Stationary Source Planning Section

Douglas Neeley

TO: APB Staff Responsible for Processing State Submittals

The new SIP processing procedures were published in the Federal Register on January 19, 1989. As of that date, the Regional Administrator has the authority to sign final rulemaking actions in Tables 2 and 3 of the notice (copy of the three tables is attached for your use).

Effective immediately, we will implement the new procedures as follows:

When seeking concurrence from Regional Counsel and Compliance, you must make it clear what category you have decided on for the action, that is, Table 1, Table 2, or Table 3, or letter notice. Thus, their concurrence will indicate concurrence in your classification of the action.

Actions in Table 1 will continue to be handled as before: both proposal and final go for HQ review; it is not expected that any actions now classified as "minor" will be included, so the distinction between "major" and "minor" is no longer valid.

Actions in Table 2 will be provided to OAQPS for the mandatory 30-day review period. Instead of an action memorandum to the Administrator or Assistant Administrator, you will prepare a simple memorandum from the RA to Vickie Reed, Federal Register Officer, PM-223, stating our position that the action is a Table 2 notice and has been provided to HQ previously for their review.

Actions in Table 3 will go directly to Vickie Reed under cover of a memo from the RA justifying the classification as Table 3.

In view of the approaching retirement of Walter Bishop, all staff should learn to prepare packages for mailing and to write the rulemaking language for final notices. A training session on these points will be scheduled in the near future.

If any of you do not have the OAQPS notebook of guidance on preparing notices, please see me.

Attachments

TABLE 1

The following SIP actions must undergo full Regional Office and Headquarters review, with decision and signoff by the Administrator (proposed and final):

-
- ° O₃ redesignations and O₃ attainment plans (including I&M programs)
 - ° CO attainment plans dealing with area-wide problems
 - ° CO redesignations except those relating to point-source only problems or hot spots
 - ° Group I PM₁₀ plans (attainment demonstrations) including those resulting from commital SIPs
 - ° New area-wide VOC regulations (e.g., per CTG requirements, or Post-87 requirements)
 - ° VOC revisions with long-term averaging (i.e., greater than 24-hour)
 - ° SO₂ revisions involving (a) unresolved national issues (e.g., stack height remand, statistical attainment demonstrations, expected exceedances methods); (b) more than one Regional Office; (c) international issues.
 - ° SIP revisions proposing or revising State-developed air quality dispersion model guidelines, and SIP revisions based on the use of non-approved models or deviations from EPA's modeling guidance.
 - ° SIP revisions where EPA is under a court-ordered schedule (e.g., Indiana SO₂ SIP)
 - ° SO₂ Statewide plans (all elements)
 - ° SIPs for new generic State-wide programs (e.g., bubbles, PSD/NSR)
 - ° PSD/NSR SIPs submitted to comply with Post-87 O₃/CO policy
 - ° PSD/NSR SIPs for PM₁₀ group I areas
 - ° PSD/NSR SIPs submitted to comply with Alabama Power decisions
 - ° Bubbles which trade off growth allowances
 - ° Visibility plans that address existing impairment
 - ° Any FIP
 - ° Any action proposing or imposing a sanction
 - ° Any SIP revision, approval/disapproval of which would significantly deviate from national policy

TABLE 2

The following SIP actions are delegated for Regional Administrator decision and signoff (proposed and final) but require a 30-day opportunity for Headquarters' review before signoff.

- ° Particulate matter emissions relaxations
- ° VOC revisions with extended compliance schedules affecting nonattainment areas
- ° CO attainment plans dealing with hotspots
- ° CO redesignations relating to point-source only problems and hot spots
- ° SO₂ area-wide and source-specific SIP revisions and redesignations, where the source(s) or background sources in the aggregate have allowable emissions of 25,000 TPY or more (except primary nonferrous smelters or emission trading)
- ° SO₂ revisions with (a) averaging times greater than the short-term SO₂ NAAQS; (b) revised emission limits due to changes in stack height credits
- ° Visibility SIPs involving regional haze
- ° Direct final rulemaking in categories identified for Administrator signoff (See Table 1)
- ° Any other action not listed elsewhere

TABLE 3

The following SIP actions are delegated for Regional Administrator decision and signoff (proposed and final). Headquarters review is not required but may be requested by the Regional Office.

-
- ° All other bubbles and all other single-source regs.
 - ° VOC extended compliance schedules (except those affecting nonattainment areas)
 - ° PM₁₀ Group II and III SIPs
 - ° TSP redesignations
 - ° Lead attainment plans and revisions
 - ° All other SO₂ SIPs, including redesignations; ambient monitoring plans; malfunction rules; State AAQS
 - ° State stack height regulations and negative declarations
 - ° All other PSD/NSR SIPs
 - ° All other visibility plans
 - ° 111(d) plans/negative declarations
 - ° All other direct final rulemaking
 - ° All letter notice actions

[illegible]




UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

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JAN 30 1989

MEMORANDUM

SUBJECT: Procedures for Letter Notice Approval of Minor SIP Actions

FROM: Gerald A. Emison, Director 
Office of Air Quality Planning and Standards (MD-10)

TO: Director, Air Management Division
Regions I, III, IX
Director, Air and Waste Management Division
Region II
Director, Air, Pesticides & Toxics Division
Regions IV, VI
Director, Air and Radiation Division
Region V
Director, Air and Toxics Division
Region VII, VIII, X

The Agency is currently reforming the entire system for processing State implementation plans (SIPs) pursuant to recommendations of the Deputy Administrator's Task Group on SIP Processing. One such recommendation creates an entirely new form of SIP processing referred to as "letter notice." This memorandum describes the new letter notice procedure and provides examples of letter notice approvals and a model Federal Register notice.

Under the letter notice procedure, EPA will use letters to affected States and parties rather than notice-and-comment rulemaking to approve truly insignificant SIP actions. The Agency will not publish notices of proposed rulemaking in the Federal Register prior to sending final letter notice approvals to the States and affected parties. The letter to the State will be the Agency's final action approving such minor SIP revisions. The Agency will periodically publish a summary list of all letter notice actions in the Federal Register to keep the general public informed of SIP matters. The effective date of letter notice approvals will be the date of the letter to the State, not the date of the subsequent summary Federal Register

notice. Letter notice approvals will, however, remain subject to potential judicial review until 60 days after the date of the summary Federal Register notice.¹

Regional Offices are encouraged to use the letter notice procedure for all minor SIP approvals that are sufficiently insignificant such that no member of the general public would have an interest in commenting on them. Categories of SIPs appropriate for processing through letter notice differ from those previously processed under the "direct-final" procedure in that direct-final has been used for SIPs on which EPA did not expect to receive any adverse comment but which may have held some interest for the general public. Letter notice should be used only for those SIPs on which the public will have no interest in commenting. The Agency is justifying dispensing with notice and comment rulemaking by relying on the exemption in the Administrative Procedure Act for situations where it is "unnecessary or contrary to the public interest" to provide opportunity for public comment. See 5 U.S.C. 553(b). For a full analysis of the legal issues associated with the letter notice procedure, see memorandum, Sara Schneeberg to Jim Weigold, "Legal Analysis of Letter Notice Option for Processing Minor SIP Actions," dated May 25, 1988 (attached).

Categories of SIP actions appropriate for letter notice processing would include recodification involving no substantive changes, minor technical amendments, typographical corrections, address changes and similar non-substantive matters. Regional Offices are encouraged to consult in advance with the Office of Air Quality Planning and Standards if questions arise concerning the appropriateness of using letter notice processing for any particular SIP action.

Where insignificant SIP actions are generally applicable, Regional Offices should send a letter similar to that in Attachment A from the Regional Administrator to the State indicating that EPA is approving the SIP action. Where insignificant SIP actions are source-specific, a letter similar to that in Attachment B should be sent to the affected source in addition to the approval letter sent to the State.

¹ Clean Air Act Section 307(b)(1) provides that "[a]ny petition for review under this subsection shall be filed within sixty days from the date notice of such promulgation, approval or action appears in the Federal Register" 42 U.S.C. 7607(b)(1).

Periodically as the Regional Office determines appropriate, but generally not less often than once every six months, Regional Offices should publish in the Federal Register a summary listing of all letter notice approvals made by the Regional Administrator since the last summary publication. A model summary Federal Register notice is included as Attachment C to this memorandum.

I believe that use of the letter notice procedure will greatly expedite your processing of minor SIP revisions. Should you or your staff have any questions on these procedures please contact Johnnie Pearson of my staff at FTS 629-5691 or Sara Schneeberg of the Office of General Counsel at FTS 382-7606.

Attachments

cc: Regional Counsel, Reg. I-X
Regional Counsel (Air Contact), Reg. I-X
Air Branch Chiefs, Reg. I-X
John Calcagni
Johnnie Pearson
Sara Schneeberg
Jim Weigold

ATTACHMENT A

MODEL APPROVAL LETTER TO STATE

Governor
State of [Name of State]

Dear Governor:

The Environmental Protection Agency (EPA) has received your request for approval of a revision to the [name of State] State implementation plan (SIP) for [pollutant] relating to [subject matter of SIP revision] submitted to us on [date of submission].

I have determined that this minor SIP revision complies with all applicable requirements of the Clean Air Act (CAA) and EPA policy and regulations concerning such SIP revisions. [Insert more detailed rationale for approval as appropriate.] I am therefore approving this submission under section 110(a) of the CAA as a revision to the [name of state] SIP for [pollutant]. This approval is effective as of today's date.

Due to the minor nature of this SIP revision, EPA has concluded that conducting notice-and-comment rulemaking prior to approving this SIP revision would be "unnecessary and contrary to the public interest," and hence not required by the Administrative Procedure Act, 5 U.S.C. 553(b). I am approving this revision consistent with the procedures outlined in EPA's Notice of Procedural Changes on SIP processing published on January 19, 1989 at 54 FR 2214. This is a final action of the Agency subject to judicial review as appropriate.

[Insert the following if appropriate]

I have informed [name of company] of this action.

Sincerely,

Regional Administrator

ATTACHMENT B

MODEL INFORMATION LETTER TO SOURCE

President
[Name of Company]

Dear [Name of Company President]:

The Environmental Protection Agency (EPA) has received a request from the state of [name of state] for approval of a revision to the [name of state] State implementation plan (SIP) for [pollutant] relating to [subject matter of SIP revision] involving your company. I have determined that this minor SIP revision complies with all applicable requirements of the Clean Air Act (CAA) and EPA policy and regulations concerning such SIP revisions. [Insert more detailed rationale for approval as appropriate.] I have therefore approved this submission under section 110(a) of the CAA as a revision to the [name of state] SIP for [pollutant] by letter dated today. The approval is effective as of this date.

Due to the minor nature of this SIP revision, EPA has concluded that conducting notice-and-comment rulemaking prior to approving this SIP revision would be "unnecessary and contrary to the public interest," and hence, not required by the Administrative Procedure Act, 5 U.S.C. 553 (b). I have approved the revision consistent with the procedures outlined in EPA's Notice of Procedural Changes on SIP Processing published on January 19, 1989 at 54 FR 2214. This approval is a final Agency action subject to judicial review as appropriate.

Sincerely,

Regional Administrator

ATTACHMENT C

MODEL SUMMARY FEDERAL REGISTER NOTICE

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

AGENCY: Environmental Protection Agency (EPA)

ACTION: Notice of Approvals

SUMMARY: Pursuant to procedures described at 54 FR 2214 (January 19, 1989), EPA has recently approved a number of minor State implementation plan (SIP) revisions. This notice lists the revisions EPA has approved and incorporates the relevant material into the Code of Federal Regulations.

DATES: The incorporation by reference will be effective [insert date of publication in Federal Register].

ADDRESSES: Copies of the State SIP revision requests and EPA's letter notices of approval are available for public inspection during normal business hours at the following locations:

Environmental Protection Agency
Region _____
[Address of Regional Office]
State of [Name of State]
[Address of State Environmental Office]

FOR FURTHER INFORMATION CONTACT: [name and address of Regional contact person]

SUPPLEMENTARY INFORMATION: EPA Region ____ has approved the following minor SIP revision requests under section 110(a) of the Clean Air Act (CAA):

STATE	POLLUTANT	SUBJECT MATTER	SOURCE	DATE OF SUBMISSION	DATE OF APPROVAL
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[Prepare table with headings similar to those shown.]

EPA has determined that each of these SIP revisions complies with all applicable requirements of the CAA and EPA policy and regulations concerning such revisions. Due to the minor nature of these revisions, EPA concluded that conducting notice-and-comment rulemaking prior to approving the revisions would have been "unnecessary and contrary to the public interest," and

hence was not required by the Administrative Procedure Act, 5 U.S.C. Section 553(b). Each of these SIP approvals became final and effective on the date of EPA approval as listed in the chart above.

The Office of Management and Budget has exempted all SIP approvals from the requirements of Section 3 of Executive Order 12291.

Under 5 U.S.C. 605(b), I certify that these SIP revisions will not have a significant impact on a substantial number of small entities. See 46 FR 8709.

Under Section 307(b)(1) of the CAA, as amended, judicial review of this action is available only by filing a petition for review in the United States Court of Appeals for the appropriate circuit within 60 days of today. These actions may not be challenged later in proceedings to enforce their requirements. See Section 307(b)(2).

List of Subjects in 40 CFR Part 52: [List relevant subjects]

Date

Regional Administrator

40 CFR Part 52, Subpart _____, is amended as follows:

Subpart __ - [Name of State]

1. The authority citation for Part 52 continues to read as follows: AUTHORITY: 42 U.S.C. 7401-7642.

2. Section _____ is amended as follows:
[insert relevant CFR language]

[illegible]



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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de Groot
Dion
Sander
Southall

CHH
8/28/89
B/b

AUG 29 1989

MEMORANDUM

SUBJECT: Revised Guidance on Enforcement of State Implementation Plan Violations Involving Proposed SIP Revisions

FROM: Terrell E. Hunt *Terrell E. Hunt*
Associate Enforcement Counsel for Air
Office of Enforcement and Compliance Monitoring

John S. Seitz, Director *John S. Seitz*
Stationary Source Compliance Division
Office of Air Quality Planning and Standards

TO: Addressees

Attached is final guidance on the above-referenced topic. We issued this guidance in draft on April 26, 1989. The final policy reflects the comments we received in response to the draft as well as relevant judicial developments that have occurred between the dates of the draft and final document.

This guidance is being issued to help alleviate the uncertainty which currently affects decisions to initiate enforcement actions against sources with pending SIP revisions, particularly sources of volatile organic compounds (VOCs). Because of the importance of the ozone non-attainment problem currently confronting EPA, it is crucial for the Agency to maintain an active docket of VOC enforcement actions. This guidance can help Regions target enforcement actions to situations where the facts are favorable to the Agency's position in litigation.

On June 7, 1989, after the draft guidance was issued, the U.S. Court of Appeals for the First Circuit issued its opinion in United States v. General Motors Corp. (Framingham, Mass.) No. 88-1799. This decision, which found that EPA has four months in which to act on proposed SIP revisions but that failure to act does not raise an enforcement bar, has been incorporated into the guidance.

Some commenters on the draft guidance suggested that, instead of waiting to refer a case affected by a particular proposed SIP revision until after the proposed disapproval of that SIP revision is published in the Federal Register, it might be preferable to refer the case, but hold off filing until the disapproval is published. We have not adapted this change because it would place a substantial burden on the Department of Justice (DOJ) to scrutinize cases to make sure that they are ready to be filed. Every case referred for enforcement action should be ready to be filed immediately.

Other commenters noted that we had not discussed the situation where a proposed SIP revision is submitted to EPA after a case is referred but before it is filed. We have added a discussion of this situation. We have not discussed the situation where a proposed SIP revision is submitted to EPA after a case is filed because it seems apparent that this should not be cause for dismissing a filed enforcement action.

This guidance supersedes the "Guidance on Evaluating Clean Air Act Enforcement of State Implementation Plan Violations Involving Proposed State Revisions," dated December 31, 1987. Please insert this document in its place at Part E, Document #32 of the Clean Air Act Policy Compendium.

Please address any questions on this policy to Judy Katz (LE-134A), 382-2843.

Attachment

Addressees:

Regional Counsels
Regions I-X

Regional Counsel Air Contacts
Regions I-X

Air and Waste Management Division Director
Region II

Air Management Division Directors
Regions I, III, and IX

Air and Radiation Division Director
Region V

Air, Pesticides, and Toxics Management Division Directors
Regions IV and VI

Air and Toxics Division Directors
Regions VII, VIII, and X

Air Compliance Branch Chiefs
Regions I-X

Alan Eckert
Office of General Counsel

David Buente
Environmental Enforcement Section
U.S. Department of Justice

Robert Van Heuvelen, Assistant Chief
Environmental Enforcement Section
U.S. Department of Justice

cc: Edward E. Reich
Acting Assistant Administrator
for Enforcement and Compliance Monitoring

William G. Rosenberg
Assistant Administrator
for Air and Radiation



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUG 29 1989

MEMORANDUM

SUBJECT: Revised Guidance on Enforcement of State Implementation Plan Violations Involving Proposed SIP Revisions

FROM: Terrell E. Hunt *Terrell E. Hunt*
Associate Enforcement Counsel for Air
Office of Enforcement and Compliance Monitoring

John S. Seitz, Director *John S. Seitz*
Stationary Source Compliance Division
Office of Air Quality Planning and Standards

TO: Addressees

In light of the Fifth Circuit decision in American Cyanamid and other recent decisions across the country which have interpreted Clean Air Act time limits for processing State Implementation Plan ("SIP") revisions, we are providing some guidance to help EPA decide on appropriate enforcement responses where SIP revisions are pending. Where Regions have decided to pursue a judicial civil action, this guidance also suggests how to develop an effective SIP enforcement action. Appendix A of this guidance describes recent cases that have ruled on this issue.

We have also attached, as Appendix B, a case evaluation form for assessment of each case. The format is designed to allow EPA Headquarters to assess national trends in SIP revisions. Please evaluate the facts of individual cases based on the criteria in this guidance, then complete and include the form with all litigation reports in SIP enforcement cases. The evaluation forms should be submitted to the Department of Justice as well as to EPA. They need not be included with pre-referral packages.

I. Background

Section 110 of the Clean Air Act requires each state to prepare a SIP for the attainment and maintenance of National Ambient Air Quality Standards, and to submit the SIP to EPA for approval. The Administrator is required by Section 110(a)(2) to act on initial submissions within four months. Section 110(a)(3) provides the procedure for EPA action on SIP revisions, but has no similar explicit deadline for EPA action. As discussed more fully below, some federal circuit courts have concluded that the four-month deadline applicable to initial SIP submissions applies as well to SIP revisions. Although other courts have suggested that this time limitation does not apply to SIP revisions, the trend has been for courts to find that the four month limit applies.

The Act authorizes the Administrator to initiate enforcement proceedings against any person in violation of any requirement of an applicable SIP, i.e., the implementation plan, or the most recent revision thereto, which has been approved by EPA. In the past few years, Federal circuit courts have limited Section 120 and section 113 enforcement when final EPA action on a SIP revision has been pending for more than four months.

EPA currently reviews approximately 150 to 200 SIP revisions each calendar year. The review of each of these revisions routinely requires more than four months to complete. Under EPA's current workload model, a final SIP revision decision is scheduled to be published within 14 months of submission. In fact, however, less than 50% of these revisions are processed within fourteen months, and some revisions have taken four to five years to process. Although delays have often resulted from the submission by states of incomplete SIP revision packages, internal delays at EPA also affect the timing. Additionally, OMB review of proposals to disapprove submitted revisions may cause further delays in the process.

Even with the administrative steps EPA has recently taken to streamline and further standardize the SIP review process, or any possible new legislation setting a statutory time period for EPA review which is longer than four months, cases will continue to be affected by pending SIP revisions. The Agency's workload can be expected to increase as a result of SIP calls for ozone nonattainment areas, new SIPs resulting from NAAQS revisions (e.g., PM₁₀), and SIP revisions contemplated by proposed legislation. In addition, SIP revisions can be expected to increase as a defensive strategy to side-track enforcement in light of recent adverse judicial interpretation. Therefore, addressing proposed SIP revisions and the SIP revision process will become important considerations in pending and future air enforcement cases.

II. Guidance on Referring Cases Affected by SIP Revisions

The following factors should be considered during the determination of whether to refer a civil action. Some are clear-cut matters and some involve the weighing of equitable circumstances:

A. SIP revision approval is likely.

If a Region after reviewing a formal state submittal or a submittal provided for parallel processing, is able to determine that it will probably approve a pending SIP revision which would authorize the source's existing operations, there is very little likelihood that a court would either order compliance with more stringent existing limits or assess substantial penalties for emissions unless the defendant exceeds the limits allowed in the revised SIP. Therefore, it is unlikely that a complaint would be filed as a result of a referral seeking either injunctive relief or penalties in this situation. Enforcement resources would be better directed to other cases. However, if a Region determines that an important deterrent purpose would be served by pursuing a penalties-only enforcement action for a source in this category, the referral may be made.

B. Fifth Circuit cases.

The Court of Appeals decision in American Cyanamid (See Appendix A) was not appealed. Therefore, enforcement actions against sources located within the Fifth Circuit's jurisdiction should be pursued only in factually different circumstances. The Region should not seek Section 120 penalties in administrative or judicial proceedings until EPA has published at least one final disapproval of a SIP revision in the Federal Register. However, if Section 120 enforcement is being delayed by successive proposed revisions, it can proceed after denying the first revision. The successive submittals would be a new problem not addressed by the court. A Region might also refer cases based upon other factors not adversely decided in American Cyanamid; and it might refer cases for Section 113 proceedings, which, unlike Section 120, allow consideration of equitable factors in the assessment of penalties. We urge you to consult with the Air Enforcement Division and Department of Justice attorneys as Fifth Circuit cases are considered for referral.

C. No Compliance with Proposed SIP Revision.

If the source has not materially complied with the proposed SIP revision, the case is a reasonable candidate for referral even before the Region acts on a pending SIP revision. A court may be persuaded that penalties are appropriate. The appropriate

injunctive relief should be analyzed in the litigation report with modifications to be determined at the time of settlement or judicial decision.

D. No Proposed Revision Submitted to EPA.

Where federal approval of a SIP revision is required and the state has not submitted a proposed SIP revision, e.g., a non-generic bubble, then there is no reason to delay enforcement.¹ Conversely, if the source complies with a generic bubble which has been approved by the State, and EPA agrees that the state's bubble approval authority is generic, no enforcement action should be undertaken. If EPA has not received a formal SIP revision submittal because the State is still processing the proposal and has not requested EPA to review the revision pursuant to the parallel processing procedure or an incomplete submittal was returned to the State, the case may be referred for enforcement.² The litigation report should discuss any known pending state action on a SIP revision if the matter otherwise merits such action. Likewise, if a Region refers a case and then subsequently receives a proposed SIP revision before the case has been filed by DOJ, there is no reason to withhold filing the case unless the Region determines that the SIP is likely to be approved.

E. SIP Revision Disapproval by Region.

As discussed earlier, courts have differed about the need for final Agency action before an enforcement action may be commenced. Where the Region plans to disapprove a SIP revision, we recommend that the Region refer a case for enforcement after the proposed disapproval has been published in the Federal Register unless a serious endangerment to health will result from a delay. If a serious health risk exists, the case should be referred after the Regional Administrator acts on the package

proposing disapproval and the Regional SIP staff have discussed

¹EPA ought to inform both the State and the affected source for source-specific revisions that EPA believes the SIP revision requires formal Federal approval, where there is a defensible legal basis for EPA's position.

²Where EPA has received only an informational package, the Region ought to notify immediately the state and the affected source (in the case of a source specific proposal) that the package is not a formal submittal, and that enforcement action may commence against the source unless parallel processing is requested.

all issues with the appropriate Headquarters offices. Other factors outlined in the equitable consideration section of the December 31, 1987, guidance also should be considered.

F. Equitable Considerations.

Equitable considerations bear on the decision to refer an enforcement action when a SIP revision is pending with the Region. Since no court has held that EPA should be barred from seeking injunctive relief when a SIP revision is pending, it may, in appropriate circumstances, be desirable to refer an action for injunctive relief. For example, if imminent and substantial endangerment to health exists in any jurisdiction, including the Fifth Circuit, enforcement should be undertaken regardless of the status of the SIP revision. Similarly, as discussed above, a case should be referred after the Regional Administrator acts to propose disapproval of a SIP revision but before it is published in the Federal Register if a serious health risk exists.

Additional equitable factors which bear on the decision to refer a case include the actual SIP revision review period, the timing of the SIP revision submittal in relation to any preliminary enforcement procedures (i.e., whether the submittal appears to be a dilatory tactic employed to impede enforcement action), the source's ability to comply with the applicable SIP without great expense and difficulty, and the cooperation of the source in providing accurate information and endeavoring to comply with air requirements. Many of the above factors may pertain to a case and should be evaluated along with the source's willingness to negotiate in assessing the appropriate enforcement action. We also recommend that you consult with the Air Enforcement Division and Department of Justice before referring a case based only on these equitable factors.

IV. Other Considerations

In order to assess a case for referral, the Regional attorneys will have to consult with the Region's SIP analysts. We recommend that this be undertaken with an awareness of the Seventh Circuit decision in Bethlehem Steel Corp. v. EPA, 638 F.2d 994 (7th Cir. 1980).

The Case Evaluation Sheet with definitions of its data points has been provided to assist you in ensuring that the relevant information has been obtained for your evaluation. This data will be used for national evaluations of all SIP enforcement cases. We therefore ask that you complete the evaluation form for all SIP enforcement actions regardless of whether a revision is pending at the time of referral.

V. Summary

In summary, we recommend that enforcement be initiated when one of the following set of circumstances exist: 1) the source is not in compliance with the pending SIP revision, 2) no SIP revision has been submitted to EPA, 3) the (proposed) disapproval of the SIP revision has been published in the Federal Register (except for the Fifth Circuit where final disapproval is needed), or 4) equitable considerations mandate action. We recommend that a Region concentrate on these cases rather than cases where a SIP revision approval is likely, or where the merits of the SIP revision have not been addressed by the Region.

Our staff will be available to discuss specific cases with you. We appreciate your assistance in considering these additional factors in your case evaluation. Please contact us, or Judy Katz, Air Enforcement Division, FTS 382-2843), if you have any questions regarding this policy.

Attachment

Addressees:

Regional Counsels
Regions I-X

Regional Counsel Air Contacts
Regions I-X

Air and Waste Management Division Director
Region II

Air Management Division Directors
Regions I, III, and IX

Air and Radiation Division Director
Region V

Air, Pesticides, and Toxics Management Division Directors
Regions IV and VI

Air and Toxics Division Directors
Regions VII, VIII, and X

Air Compliance Branch Chiefs
Regions I-X

Alan Eckert
Office of General Counsel

Appendix A

Judicial Interpretation of the SIP Revision Procedure

Several courts have scrutinized SIP revision procedures and, in some instances, have also considered whether SIP revision timing affects enforcement. These judicial determinations should be considered by a Region during an evaluation of a case prior to its referral. The following judicial decisions have addressed the issue of the SIP revision procedure.

In Duquesne Light Co. v. EPA, 698 F.2d 456 (D.C. Cir. 1983), the D.C. Circuit held that SIP revisions must be acted upon by the Administrator within four months and that Section 120 administrative penalties may be assessed but collection would be "held in abeyance" for the period beyond the four month deadline after a request for a SIP revision is submitted to EPA. If EPA later disapproves the proposed revision, it may then collect the penalty from the date of the four-month deadline, with interest.

Council of Commuter Organizations v. Gorsuch, 683 F.2d 648 (2nd Cir. 1982) and Council of Commuter Organizations v. Thomas, 799 F.2d 879 (2nd Cir. 1986) were cases where the Second Circuit Court of Appeals used the four-month requirement for review of initial SIPs as an analogy and stated that EPA was required to approve or disapprove SIP revisions within four months. The Second Circuit did not, however, discuss whether the pendency of a SIP revision for more than four months impinges on EPA's authority to enforce a provision of the applicable SIP. Instead, the court stated that the appropriate remedy for requiring an EPA decision within four months was a citizen's suit.

In United States v. National Steel Corp., 767 F.2d 1176 (6th Cir. 1985), the Sixth Circuit accepted EPA's interpretation that the four month rule in the Act applies only to EPA review of general state plans and not to revisions.

The Northern District of California, in Dunn-Edwards v. Thomas, C.A. No. C-87-3157 MHP (N.D. Cal. August 4, 1987), noted in dictum that there was no express statutory deadline for EPA action on SIP revisions. The Court did not decide whether EPA delays impinged on Section 113 enforcement. It distinguished American Cyanamid (see below) and Duquesne Light as involving penalty assessments pursuant to Section 120 rather than Section 113. The court dismissed an action by paint manufacturers to enjoin EPA from taking initial steps pursuant to Section 113 to enforce a SIP where a proposed revision had been pending at EPA for more than four months. Although the court did not decide

whether the pendency of the SIP revision for more than four months would bar issuance of a Section 113(a) administrative order or initiation of a Section 113(b) judicial enforcement action, the Court refused to "rescind" the Notices of Violation which EPA issued to the companies.

The Fifth Circuit refused to adopt the D.C. Circuit Court Duquesne Light reasoning rule regarding the effect of delay past four months in a Section 120 proceeding. In American Cyanamid Co. v. EPA, 810 F.2d 493, 500 (5th Cir. 1987), the Court held that EPA may not collect Section 120 administrative penalties for violations of an applicable SIP during the period "between 1) four months after a state submits and 2) the date EPA rejects the revision." The Court also held that EPA may not "commence" a Section 120 proceeding to collect the economic benefit of noncompliance with the applicable SIP, other than to issue a notice of noncompliance, once four months have passed without EPA action on a pending revision. After EPA ultimately rejects a proposed revision, it may commence a Section 120 proceeding. The court stated that it had not prohibited EPA from collecting noncompliance penalties from the date of a notice of noncompliance until four months after the state submitted a proposed SIP revision and then resuming noncompliance penalties for the period after EPA rejected the State's proposed revision. Neither Duquesne Light Co. v. EPA, supra nor American Cyanamid Co. v. EPA, supra, pertained to an injunctive action.

The first case to consider whether EPA can bring a Section 113 judicial enforcement action when a SIP revision has been pending for longer than four months was U.S. v. Alcan Foil Products, Civil No. C-87-0434-L-B (W.D. Ky. March 15, 1988). The court held that EPA was required to review a pending SIP revision within four months of its submittal and that the Agency could not bring a Section 113 judicial enforcement action for violation of a federally approved SIP until after EPA acts on any SIP revision submitted to EPA by the State. The amount of penalties would be determined in accordance with the equities of each case. The Alcan court held that EPA could not enforce the standards of the proposed revision because it had not taken final action on those standards. The court stated that Kentucky and EPA must resolve the state-federal factual dispute about whether Alcan complied with the proposed SIP revision before EPA could commence an enforcement action against Alcan for any violations of that SIP revision if it were approved. The court did not address the merits of EPA's claim of a violation of the Clean Air Act. EPA has filed an appeal to the Sixth Circuit.

In U.S. v. Arkwright, Inc., C.A. No. 87-2000-D (D. N.H. June 10, 1988) the court held that EPA was required to review a pending SIP revision within four months, but that the Agency's failure to make a final decision on the SIP did not bar this simultaneous Section 113 enforcement proceeding for the violation of a SIP. The defendant had to comply with the existing federally approved SIP until it was formally revised by EPA. The court also denied the defendant's motion to dismiss based on its equitable estoppel defense, holding that dismissal was unwarranted factually and against public policy. The court adopted the penalty collection procedure established in Duquesne Light, requiring EPA to reject the SIP revision before it could collect the civil penalty. The penalty was to be assessed for the time period from four months after submission of a SIP revision. The court denied EPA's motion for clarification in which it sought penalties from the day that defendant first violated the SIP rather than from four months after submission of a SIP revision. EPA had issued the notice of violation in this case sooner than four months after EPA received the proposed SIP revision and has now formally disapproved the proposed SIP revision.

In U.S. v. General Motors Corp., (Framingham, Mass.) No. 88-1799 (1st Cir. June 7, 1989), the First Circuit reviewed the opinion of the U.S. District Court in Massachusetts which held that EPA had four months to act on proposed SIP revisions and that, if the Agency failed to act within that time, it was prohibited from bringing or continuing an enforcement proceeding until it took final action on the pending SIP revision. The First Circuit reversed the District Court's opinion. While finding that EPA did have four months to act on proposed SIP revisions, the First Circuit held that Agency inaction on the SIP revision did not bar enforcement action. Rather, the Court held, EPA delay in acting on proposed SIP revisions and the reasons for the delay should be considered by courts as equitable factors contributing to the determination of an appropriate civil penalty under Section 113. The court's opinion did not address availability of injunctive relief.

In arriving at its decision, the First Circuit attempted to strike a balance between the approaches taken by the American Cyanamid court on one side and the Duquesne Light court on the other.

Many courts which have not directly addressed the deadline issue have held or stated in dicta that revisions to SIPs are ineffective without EPA approval. See Train v. NRDC, 421 U.S. 60, 92 (1975) ("This litigation, however, is carried out on the polluter's time not the public's, for during [the pendency of a SIP revision] the original regulations remain in effect, and the polluter's failure to comply may subject him to a variety of

enforcement procedures"); NRDC v. EPA, 507 F.2d 905, 915 (9th Cir. 1974) ("...until any variance is sanctioned by the EPA, any source operating in contravention of a state implementation plan that has been approved by that Agency is subject to forced compliance at the instance of the EPA"); Metropolitan Washington Coalition for Clean Air v. District of Columbia, 511 F.2d 809, 813 (D.C. Cir. 1985) ("A requirement of EPA approval prior to effectuation of any proposed revision is thus essential to prevent critical irreparable delays which the Administrator is not empowered to authorize under the less rigorous revision

provisions or which do not meet the standards for revision"); Getty Oil Co. (Eastern Operations) v. Ruckelshaus, 342 F. Supp. 1006 (D. Del. 1972), rem'd on other grounds 467 F.2d 349 (3d Cir. 1972); United States v. Wheeling-Pittsburgh Steel, 818 F.2d 1077 (3d Cir. 1987) (pending bubble application at a state agency is not effective until approved by the state agency and EPA and cannot be a basis for extending compliance schedule in consent decree); United States v. Ford Motor Co., 814 F.2d 1099, 1103 (6th Cir. 1987) ("the original emission limit remains fully enforceable until a revision or variance is approved by both the State and EPA"); Ohio Environmental Council v. U.S. District Court., 565 F.2d 393, 398 (6th Cir. 1977) ("If a plan became unenforceable every time such a revision became a possibility, the entire enforcement procedure of the Clean Air Act would be crippled"); United States v. West Penn Power Co., 460 F. Supp. 1305 (W.D. Pa. 1978).

Appendix B

CASE EVALUATION FORM FOR STATE IMPLEMENTATION PLAN (SIP) CASES

1. SOURCE NAME: _____
2. SOURCE LOCATION: _____
3. REGION: _____
4. FEDERAL COURT: CIRCUIT _____ DISTRICT _____

SIP REVISION

5. HAS A PROPOSED SIP REVISION BEEN SUBMITTED TO EPA? _____
6. IF NOT, A) DOES THE REGION BELIEVE THAT THE STATE HAS GENERIC
AUTHORITY TO APPROVE THE TYPE OF REVISION AT ISSUE?* _____

B) DOES THE STATE BELIEVE THAT IT HAS GENERIC AUTHORITY TO
APPROVE THE TYPE OF REVISION AT ISSUE?
7. IF A SIP REVISION HAS BEEN RECEIVED BY EPA, IS IT A FORMAL
SUBMITTAL? _____ (IS IT BEING PARALLEL PROCESSED?
_____) OR IS IT INFORMATIONAL? _____
8. IF IT IS A FORMAL SUBMITTAL, HAS THE DETERMINATION OF
COMPLETENESS BEEN MADE? _____
9. IF COMPLETE, PROVIDE DATE RECEIVED. _____
10. IF INCOMPLETE, WAS IT RETURNED TO THE STATE? _____

DATE RETURNED: _____
11. IS SIP REVISION APPROVAL LIKELY? _____

12. DOES EPA BELIEVE THE SOURCE COMPLIES WITH THE PROPOSED SIP REVISION? _____
13. DOES THE STATE BELIEVE THE SOURCE COMPLIES WITH THE PROPOSED SIP REVISION? _____
14. STATUS OF SIP REVISION SUBMITTED TO EPA:

<u>STATUS</u>	<u>OUTCOME</u>	<u>DATE</u>
	(Approval/Disapproval)	
PROPOSAL TO HQ	_____	_____
PROPOSAL TO OMB	_____	_____
PROPOSAL PUBLISHED	_____	_____
FINAL TO REGION	_____	_____
FINAL TO HQ	_____	_____
FINAL TO OMB	_____	_____
FINAL PUBLISHED	_____	_____

ENFORCEMENT

15. DATES(S) RECEIVED VIOLATION INFORMATION: _____
and TYPES OF INFORMATION RECEIVED: _____
16. DATE(S) OF NOTICE(S) OF VIOLATION: _____
DATE(S) OF NOTICE(S) OF NONCOMPLIANCE: _____

EQUITABLE CONSIDERATIONS

17. WHAT RELIEF DOES EPA SEEK? _____
- PENALTY: _____ INJUNCTIVE RELIEF: _____

18. IS THERE AN IMMINENT AND SUBSTANTIAL ENDANGERMENT TO PUBLIC HEALTH? _____

DESCRIBE: _____

19. IS THERE A SERIOUS RISK TO PUBLIC HEALTH? _____

DESCRIBE: _____)

20. POLLUTION INFORMATION:

(a) MAJOR SOURCE: _____

(b) VOLUME OF EMISSIONS: (i) ACTUAL EMISSIONS: _____TPY

(ii) ALLOWED EMISSIONS: _____TPY

(c) TYPE OF POLLUTANT: _____

(d) EXTENT OF VIOLATION: (i) ACTUAL EMISSIONS: _____

(ii) EMISSION LIMITATION: _____

(e) NONATTAINMENT AREA: _____

(f) EXTENSION AREA: _____

21. ESTIMATE COST OF COMPLIANCE OPTIONS: _____

22. COOPERATION BY THE SOURCE

(a) IS SOURCE IN COMPLIANCE WITH EXISTING SIP? _____

(b) IS SOURCE SEEKING ALTERNATIVE MEANS OF RESOLVING THE
NONCOMPLIANCE? _____

23. OTHER RELEVANT FACTORS: _____

DEFINITIONS FOR CASE EVALUATION FORM FOR SIP CASES

1. Name of company/entity violating the Clean Air Act.
2. City, County and State where source is located.
3. EPA Region
4. (See attached list of Circuit Courts)

SIP REVISION

- 5-13. Self-explanatory
14. Indicate whether the revision has been formally recommended for approval or disapproval and the date of the decision or publication.

ENFORCEMENT

15. List dates EPA received information of violation(s) and indicate whether information was provided by the source or an air pollution control agency, or as a result of an inspection by EPA.
16. Self-explanatory.

EQUITABLE CONSIDERATIONS

- 17-18. Self-explanatory.

POLLUTION INFORMATION

- 19(a). A Class A Source; including Class A1: Any stationary source whose actual or potential emissions while operating at design capacity equal at least 100 tons per year, and Class A2: Any stationary source whose uncontrolled emissions while operating at design capacity are at least 100 tons per year of any regulated pollutant.
- (b)(i). Annual tons per year of a regulated pollutant actually emitted by the source
- (ii). Annual tons per year of a regulated pollutant, permitted by applicable SIP
- (c). Self-explanatory
- (d)(i). Actual measurement of emission level of regulated pollutant.
eg. _____ pounds per gallon excluding water, of VOCs
- (ii). SIP authorized limit of emission level of regulated pollutant.
- (e). An area which as predicted by air quality modeling or measured by monitoring data exceeds any national ambient air quality standard for an air pollutant.
- (f). Is the source located in a nonattainment area which has an extension until December 31, 1987, to attain the national primary standard for photochemical oxidants and/or carbon monoxide?
- 20-22. Self-explanatory.